

Five-Year Review Report

**Third Five-Year Review Report
for
Firestone Tire & Rubber Co. (Albany Plant)
EPA ID GAD990855074**

**Albany
Dougherty County, Georgia**

April 2011

Prepared By:

E² Inc.


921 Second Street SE
Charlottesville, Virginia
22902

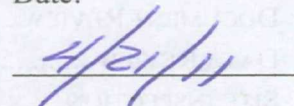
For:

United States Environmental Protection Agency
Region 4
Atlanta, Georgia

Approved by:

Date:


Franklin E. Hill
Director, Superfund Division


4/21/11



10800588

**Third Five-Year Review Report
for
Firestone Tire & Rubber Co. (Albany Plant)
Superfund Site
3300 Sylvester Highway
Albany
Dougherty County, Georgia**

List of Acronyms	3
Executive Summary	4
Five-Year Review Summary Form.....	7
1.0 Introduction.....	9
2.0 Site Chronology.....	11
3.0 Background	12
3.1 PHYSICAL CHARACTERISTICS	12
3.2 LAND AND RESOURCE USE	16
3.3 HISTORY OF CONTAMINATION	16
3.4 INITIAL RESPONSE	16
3.5 BASIS FOR TAKING ACTION	18
4.0 Remedial Actions	19
4.1 REMEDY SELECTION	19
4.2 REMEDY IMPLEMENTATION	20
4.3 OPERATION AND MAINTENANCE (O&M)	21
5.0 Progress Since the Last Five-Year Review	23
5.1 PERIODIC PULSING OF THE GROUND WATER RECOVERY SYSTEM	23
6.0 Five-Year Review Process	24
6.1 ADMINISTRATIVE COMPONENTS	24
6.2 COMMUNITY INVOLVEMENT	24
6.3 DOCUMENT REVIEW	24
6.4 DATA REVIEW	26
6.5 SITE INSPECTION.....	31
6.6 INTERVIEWS.....	34
7.0 Technical Assessment	36
7.1 QUESTION A: IS THE REMEDY FUNCTIONING AS INTENDED BY THE DECISION DOCUMENTS?	36

7.2	QUESTION B: ARE THE EXPOSURE ASSUMPTIONS, TOXICITY DATA, CLEANUP LEVELS AND REMEDIAL ACTION OBJECTIVES (RAOs) USED AT THE TIME OF REMEDY SELECTION STILL VALID?	37
7.3	QUESTION C: HAS ANY OTHER INFORMATION COME TO LIGHT THAT COULD CALL INTO QUESTION THE PROTECTIVENESS OF THE REMEDY?	37
7.4	TECHNICAL ASSESSMENT SUMMARY	37
8.0	Issues	39
9.0	Recommendations and Follow-up Actions	40
10.0	Protectiveness Statements	41
11.0	Next Review	42
	Appendix A: List of Documents Reviewed	A-1
	Appendix B: Press Notice	B-1
	Appendix C: Interview Forms	C-1
	Appendix D: Site Inspection Checklist	D-1
	Appendix E: Photographs from Site Inspection Visit	E-1
	Appendix F: Site Deed Documents	F-1

Tables

Table 1: Chronology of Site Events.....	11
Table 2: Contaminants of Concern	20
Table 3: Annual O&M Costs, 2006-2010.....	22
Table 4: Progress on Recommendation from the 2005 FYR.....	23
Table 5: Summary of Ground Water ARAR Changes.....	25
Table 6: Concentrations of TCA in Ground Water at the Site in µg/L	28
Table 7: Concentrations of DCE in Ground Water at the Site in µg/L.....	29
Table 8: Concentrations of Benzene in Ground Water at the Site in µg/L	30
Table 9: Deed Documents from Dougherty County Tax Assessors Office.....	31
Table 10: Institutional Control (IC) Summary Table	32
Table 11: Current Site Issues	39
Table 12: Recommendations to Address Current Site Issues	40

Figures

Figure 1: Site Location Map	14
Figure 2: Detailed Site Map.....	15
Figure 3: Institutional Control Base Map	33

List of Acronyms

ARAR	Applicable or Relevant and Appropriate Requirement
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COC	Contaminant of Concern
DCE	1,1-dichloroethene
EPA	United States Environmental Protection Agency
ESD	Explanation of Significant Differences
FYR	Five-Year Review
GDNR	Georgia Department of Natural Resources
ICs	Institutional Controls
µg/L	micrograms per liter
MCL	Maximum Contaminant Level
NCP	National Contingency Plan
NPL	National Priorities List
O&M	Operation and Maintenance
OSWER	EPA's Office of Solid Waste and Emergency Response
PCB	polychlorinated biphenyl
POTW	Publicly Owned Treatment Works
PRG	Preliminary Remediation Goal
PRP	Potentially Responsible Party
RAO	Remedial Action Objective
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RPM	Remedial Project Manager
TBC	To-be-considered criteria
TCA	1,1,1-trichloroethane
TMR	Technical Memorandum Report
TSCA	Toxic Substances Control Act

Executive Summary

Introduction

The Firestone Tire & Rubber Co. (Albany Plant) site (the Site) is located at 3300 Sylvester Highway in Albany, Dougherty County, Georgia. The Site is located on an approximately 325-acre property. The facility was used for manufacturing pneumatic tires from 1968 to 1986. In 1985, Firestone Tire and Rubber Company (Firestone), as a part of facility closure, voluntarily studied the contamination of soil and ground water resulting from a 6,000-gallon spill of an antioxidant that occurred in 1980, as well as from the burning of drums of liquid waste cement as a fire training exercise. The study identified the courtyard and the burn pit as two major areas of contamination. Firestone took a series of interim cleanup measures which mainly included:

- Identification, analysis and off-site removal of contaminated soil.
- Removal of debris piles, transformers, underground storage tanks, 160 drums containing waste rubber cement and Banbury Sludge.
- Study of polychlorinated biphenyl (PCB) transformer leaks.
- Installation of monitoring wells to determine extent of ground water contamination

In 1988, the Bridgestone Group bought the Firestone Tire and Rubber Company and became Bridgestone/Firestone Inc.

The Site was proposed for listing on the National Priorities List (NPL) in June 1988 and was finalized on the NPL in October 1989 as a result of environmental investigations conducted at the Site. Except for cleanup activities, the Site remained inactive between 1986 and March 1992 when Cooper Tire and Rubber Co. purchased the facility from Bridgestone/Firestone Inc. and began renovations for future operations.

Initial remedial investigations and feasibility studies at the Site identified contaminants in ground water that exceeded Safe Drinking Water Act standards. These contaminants of concern (COCs) were: antimony, benzene, beryllium, carbon disulfide, chromium, 1,1-dichloroethene (DCE), lead, PCBs and 1,1,1-trichloroethane (TCA).

The remedial actions selected by the 1993 Record of Decision (ROD) were to address the remaining contamination (after pre-NPL cleanup activities performed by the Potentially Responsible Party (PRP), Bridgestone/Firestone Inc.) in approximately 20 cubic yards of PCB-contaminated soil and volatile organic compounds in shallow ground water beneath the Site. The triggering action for this Five-Year Review (FYR) was the signing of the previous FYR report on December 21, 2005.

Remedial Action Components

The purpose of the selected remedy was to prevent current and future exposure to contamination by treating the soil and ground water to reduce migration of contaminants. The selected remedial actions for this site included in the 1993 ROD and 1996 Explanation of Significant Differences (ESD) were:

- Excavating and disposing of approximately 20 cubic yards of PCB-contaminated soil with concentrations above 10 milligrams per kilogram at an off-site Toxic Substance Control Act (TSCA)-permitted landfill.
- Backfilling the excavated areas with clean material.
- Extracting contaminated ground water using existing wells and supplemental wells if necessary.
- Treating the extracted ground water on site to ensure discharged effluent meets permit discharge limits.
- Discharging treated water to a local publicly owned treatment works (POTW).
- Periodic ground water monitoring to assess the effectiveness of the remedy.
- Institutional controls to restrict well construction and water use on the Site.

No institutional controls or additional components were required as part of the soils cleanup measures.

Technical Assessment

The remedial actions specified in the 1993 ROD and 1996 ESD continue to operate as designed. Soil remediation has been completed and ground water monitoring and remediation are ongoing. The monitoring data suggest that COC concentrations are declining in ground water. Similarly, the data suggest that there is no migration of COCs from the Residuum hydrogeological unit to the Upper Ocala hydrogeological unit. One COC (DCE) is still above its cleanup goal in two out of 10 wells; however, its concentration is declining. The other two monitored COCs, TCA and benzene, have not been detected in ground water since 1991 and 1999 respectively.

Institutional controls to restrict ground water use and well installation are in place. Operation and maintenance (O&M) procedures are occurring on a regular basis. The ground water remediation system is monitored monthly and water sampling is carried out annually. The ground water remediation system is kept operational by the PRP's O&M contractor with monthly inspections, including routine repair and maintenance.

The 1993 ROD mentions that monitoring of a COC can be discontinued if this COC has not been detected above cleanup levels for three consecutive years. Since TCA and benzene have not been detected in ground water above cleanup goals during the last four years, it may be appropriate to discontinue their monitoring. Sampling of DCE should continue until its concentration is detected below cleanup goals for ground water for at least three years in a row as specified in the 1993 ROD.

The exposure assumptions, toxicity data, cleanup levels and remedial action objectives (RAOs) used at the time of remedy selection are still valid. No standards identified in the 1993 ROD or in the 1996 ESD have changed.

The primary COC in soils at the Site were PCBs, which are dioxin-like compounds. EPA's dioxin reassessment has been developed and undergone review over many years with the participation of scientific experts in EPA and other federal agencies, as well as scientific experts in the private sector and academia. EPA followed current cancer guidelines and incorporated the

latest data and physiological/biochemical research into the assessment. The results of the assessment have currently not been finalized and have not been adopted into state or federal standards. EPA anticipates that a final revision to the dioxin toxicity numbers may be released by the end of 2010. In addition, EPA's Office of Solid Waste and Emergency Response (OSWER) has proposed to revise the interim preliminary remediation goals (PRGs) for dioxin and dioxin-like compounds, based on technical assessment of scientific and environmental data. However, EPA has not made any final decisions on interim PRGs at this time. Therefore, the dioxin toxicity reassessment for this Site will be updated during the next Five-Year Review.

The land use at the Site has not changed. Current land use near the Site does not differ significantly from the land use types described in pre-cleanup documents.

Overall, the remedy is progressing as expected and no other information has come to light that could call into question the protectiveness of the remedy at the Site.

Conclusion

The remedy at the Site is protective of human health and the environment. Contaminated soils have been excavated and properly disposed of and no contaminants remain in this medium. Routine monitoring and O&M activities continue to ensure the effectiveness of the active ground water remedy. Institutional controls for ground water are in place through restrictions on ground water use and well installation(s) as established by an amendment to a lease agreement. Exposure pathways that could result in unacceptable risks are being controlled.

Five-Year Review Summary Form

SITE IDENTIFICATION		
Site name (from WasteLAN): Firestone Tire & Rubber Co. (Albany Plant) Superfund Site		
EPA ID (from WasteLAN): GAD990855074		
Region: 4	State: GA	City/County: Albany/Dougherty County
SITE STATUS		
NPL status: <input checked="" type="checkbox"/> Final <input type="checkbox"/> Deleted <input type="checkbox"/> Other (specify)		
Remediation status (choose all that apply): <input type="checkbox"/> Under Construction <input checked="" type="checkbox"/> Operating <input type="checkbox"/> Complete		
Multiple OUs?* <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		Construction completion date: 09/28/1998
Has site been put into reuse? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
REVIEW STATUS		
Lead agency: <input checked="" type="checkbox"/> EPA <input type="checkbox"/> State <input type="checkbox"/> Tribe <input type="checkbox"/> Other Federal Agency		
Author name: Treat Suomi and Luis Carrasco (Reviewed by EPA)		
Author title: Senior Associate and Associate		Author affiliation: E ² Inc.
Review period**: 6/1/2010 to 12/22/2010		
Date(s) of site inspection: 07/15/2010		
Type of review:		
<input checked="" type="checkbox"/> Post-SARA <input type="checkbox"/> Pre-SARA <input type="checkbox"/> NPL-Removal only <input type="checkbox"/> Non-NPL Remedial Action Site <input type="checkbox"/> NPL State/Tribe-lead <input type="checkbox"/> Regional Discretion		
Review number: <input type="checkbox"/> 1 (first) <input type="checkbox"/> 2 (second) <input checked="" type="checkbox"/> 3 (third) <input type="checkbox"/> Other (specify)		
Triggering action:		
<input type="checkbox"/> Actual RA Onsite Construction at OU# <input type="checkbox"/> Actual RA Start at OU# <input type="checkbox"/> Construction Completion <input checked="" type="checkbox"/> Previous Five-Year Review Report <input type="checkbox"/> Other (specify)		
Triggering action date (from WasteLAN): 12/21/2005		
Due date (five years after triggering action date): 12/21/2010		

* ["OU" refers to operable unit.]

** [Review period should correspond to the actual start and end dates of the Five-Year Review in WasteLAN.]

Five-Year Review Summary Form continued

Issues:

Some ground water wells are exposed to heavy traffic at the Site and have been damaged. Some wells have water inside their access pits and are missing identification labels.

Recommendations and Follow-up Actions:

Improve O&M by adopting measures to protect and maintain active ground water wells to ensure appropriate performance of the ground water remedial system.

Protectiveness Statement(s):

The remedy at the Site is protective of human health and the environment. Contaminated soils have been excavated and properly disposed of and no contaminants remain in this medium. Routine monitoring and O&M activities continue to ensure the effectiveness of the active ground water remedy. Institutional controls for ground water are in place through restrictions on ground water use and well installation(s) as established by an amendment to a lease agreement. Exposure pathways that could result in unacceptable risks are being controlled.

Other Comments:

None.

Environmental Indicators

- Current human exposures at this site are under control.
- Contaminated ground water migration is under control

Are Necessary Institutional Controls in Place?

☒ All ☐ Some ☐ None

Has the Site Been Designated as Site-Wide Ready for Anticipated Use?

☒ Yes ☐ No

Third Five-Year Review Report for Firestone Tire & Rubber Co. (Albany Plant) Superfund Site

1.0 Introduction

The purpose of a Five-Year Review (FYR) is to evaluate the implementation and performance of a remedy in order to determine if the remedy will continue to be protective of human health and the environment. The methods, findings and conclusions of FYRs are documented in FYR reports. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

The U.S. Environmental Protection Agency (EPA) prepares FYRs pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) section 121 and the National Contingency Plan (NCP). CERCLA section 121 states:

“If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.”

EPA interpreted this requirement further in the NCP; 40 Code of Federal Regulations (CFR) section 300.430(f)(4)(ii), which states:

“If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after initiation of the selected remedial action.”

E² Inc., an EPA Region 4 contractor, conducted the FYR and prepared this report regarding the remedy implemented at the Firestone Tire & Rubber Co. (Albany Plant) Superfund site (the Site) in Albany, Dougherty County, Georgia. This FYR was conducted from June to December 2010. EPA is the lead agency for developing and implementing the remedy for the Potentially Responsible Party (PRP)-financed cleanup at the Site. Bridgestone/Firestone Inc. is the PRP. The Georgia Department of Natural Resources (GDNR) Environmental Protection Division (EPD), as the support agency representing the State of Georgia, has reviewed all supporting documentation and provided input to EPA during the FYR process.

This is the third FYR for the Site. The triggering action for this policy review is the previous FYR in 2005. The FYR is required due to the fact that hazardous substances, pollutants or

contaminants remain at the Site above levels that allow for unlimited use and unrestricted exposure. The Site consists of one operable unit (OU), which is addressed in this FYR.

2.0 Site Chronology

The following table lists the dates of important events for the Site.

Table 1: Chronology of Site Events

Event	Date
Initial discovery of problem or contamination	August 1, 1980
Pre-National Priorities List (NPL) responses began	September 29, 1985
Site inspection	September 30, 1986
Proposal to NPL	June 24, 1988
NPL responsible party search	August 11, 1988
Hazard Ranking System package complete	September 20, 1989
NPL listing	October 4, 1989
Administrative order on consent	March 30, 1990
PRP Remedial investigation/feasibility study (RI/FS) starts	June 29, 1990
PRP RI/FS complete	July 9, 1990
Site is purchased by Cooper Tire and Rubber Co.	March 12, 1992
Removal assessment	December 31, 1992
PRP RI/FS complete and ROD signature	June 24, 1993
Administrative record compiled for a remedial event	July 14, 1993
PRP remedial design of soil cleanup starts	March 16, 1994
PRP remedial design of soil cleanup complete	July 24, 1994
Consent decree	August 8, 1994
PRP remedial action starts (soil excavation and off-site disposal)	October 14, 1994
PRP remedial action ends (soil excavation and off-site disposal)	November 15, 1994
Explanation of significant differences (ESD) issued	March 1996
PRP remedial design for ground water remediation approved and remedial action plan issued	June 28, 1996
PRP remedial action complete (Operation and maintenance; publicly owned treatment works and pump-and-treat area) and preliminary close out report	September 28, 1998
First FYR signed	September 29, 2000
Second FYR signed	December 21, 2005

3.0 Background

3.1 Physical Characteristics

The Site is located at 3300 Sylvester Highway in Albany, Dougherty County, Georgia approximately one mile east of the limits of the City of Albany (Figure 1). The Site consists of an approximately 325-acre property and was initially owned by Firestone Tire and Rubber Company (Firestone). An approximately 42-acre building that was used for manufacturing tires from 1968 to 1986 is located on the Site. Currently the Site is owned by Cooper Tire and Rubber Co. and until recently it was used as a warehouse for tires and other equipment. The Site has several paved roads that surround the main building as well as a security check entrance and a parking lot. The building is surrounded by grass and there is a large section of undeveloped forested land and wetland that covers the southern section of the Site (Figure 2).

Along the eastern property line of the Site lies a 332-acre landfill and a one-acre residential property. Immediately to the north of the Site is Sylvester Highway. North of Sylvester Highway, across from the Site, there are several residential and commercial properties that include mobile home park areas, active commercial and retail sites, and a gas station. Along the western property line there is a church and a vacant property belonging to Albany Dougherty Payroll Development Authority. The southern property line lies along North Shaw Road and the Seaboard Coastline railroad tracks. A railroad spur along the east side of the Site, which served the facility's shipping and receiving operations, is connected to the Seaboard Coastline railroad at the southeast corner of the Site. To the south of the Site, beyond the railroad right-of-way, lies the U.S. Marine Corps Logistics Base, which is also a Superfund site. There are several residential areas within three miles of the Site.

There are two distinct vegetation zones at the Site: a grassy area located on the northern half of the Site, and a wooded and wetland area located on the southern half of the Site. The southern half of the Site consists of a mixed southern pine/hardwood forest and large wetland areas. The upland areas of the pine/hardwood forest consist mostly of young slash pine and live oak. Some sections of the upland area are barren or covered only with herbaceous plants including golden aster, honeysuckle, black raspberry and goldenrods. The wetland areas of the southern half contain such species as black willow, water oak, southern bayberry and cattail. Wildlife has previously been observed on the Site, including white-tailed deer, raccoon, gray fox, gray squirrel, eastern cottontail rabbit, birds and other fauna. According to the Georgia Wildlife Resources Division the site is not located within a state-managed area or a conservation land.

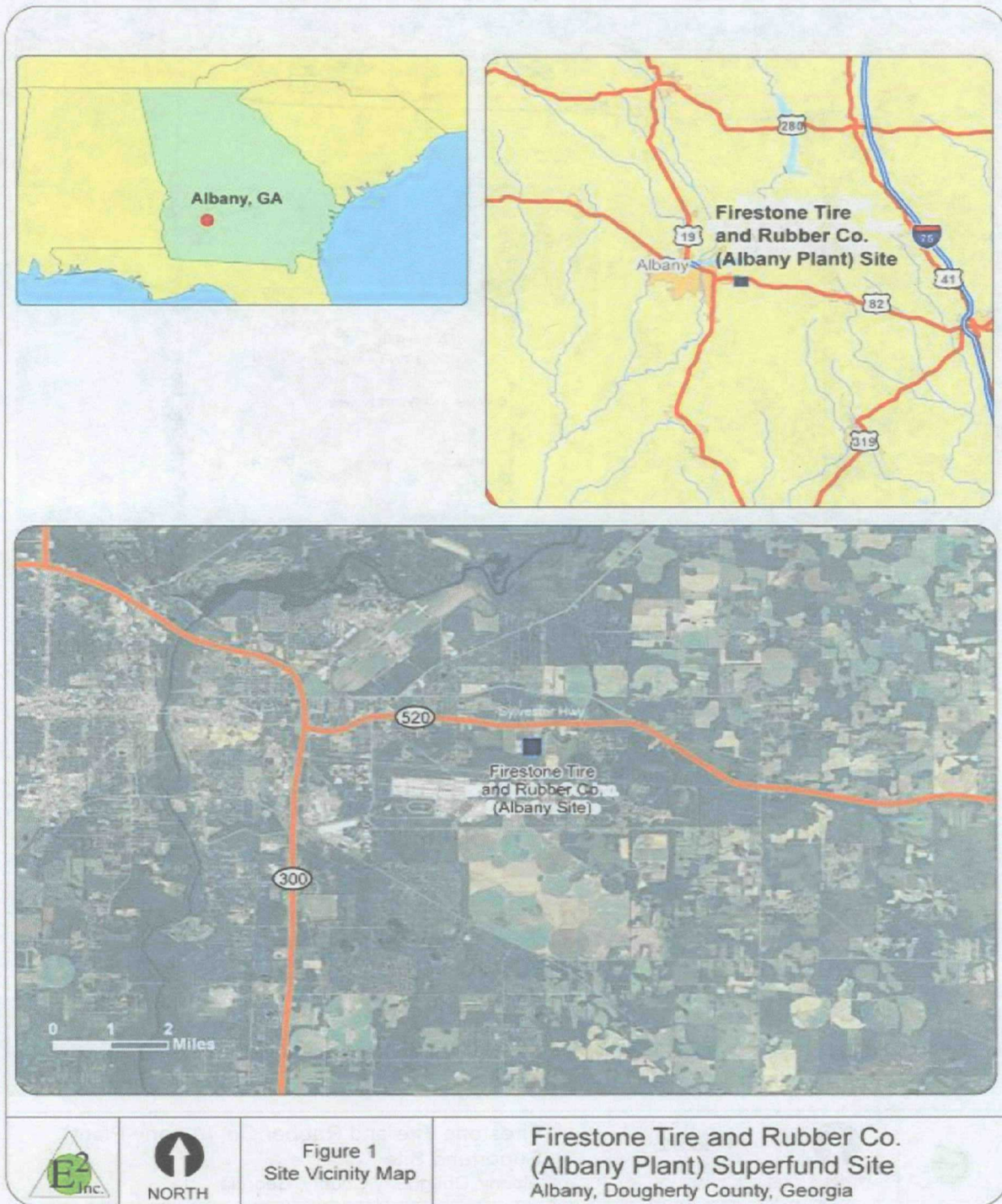
The Site is located in the Dougherty Plain district of the Coastal Plain physiographic province at an elevation range of 200 to 220 feet above mean sea level. The Dougherty Plain is characterized by flat to gently undulated topography and contains numerous sinkholes caused by material dissolution and collapse of the underlying limestone. At the Site, there is a natural stormwater retention pond which has been delineated as wetland area #3. The Site contains both well-drained and poorly drained areas. The well-drained

areas include the manufacturing plant area. Poorly drained areas include some of the wetland areas at the Site. The surface water hydrology at the Site is influenced mainly by storm events since the ditches and ponds have been observed to completely dry up during periods without precipitation. Rainfall flows from north to south through two ditches located east and west of the Site. These ditches also collect water from areas north, east and west of the Site. Stormwater on the northern section of the Site can drain to the ground water or flow through the east and west ditches, whereas stormwater on the southern section flows to the wetland area.

The Site-specific hydrogeologic units consist of the Residuum, the Upper Ocala Limestone and the Lower Ocala Limestone, which are part of Coastal Plain sedimentary strata. The lithology of the Residuum hydrogeologic unit (the Residuum) has been described as sandy clay to clayey sand. This unit grades into the underlying Ocala Limestones. The Upper Ocala Limestone hydrogeologic unit (the Upper Ocala) is composed of soft and weathered limestone and the Lower Ocala hydrogeologic unit (the Lower Ocala) by more indurated limestone. These three hydrogeologic units are within the Upper Floridan Aquifer at the Site.

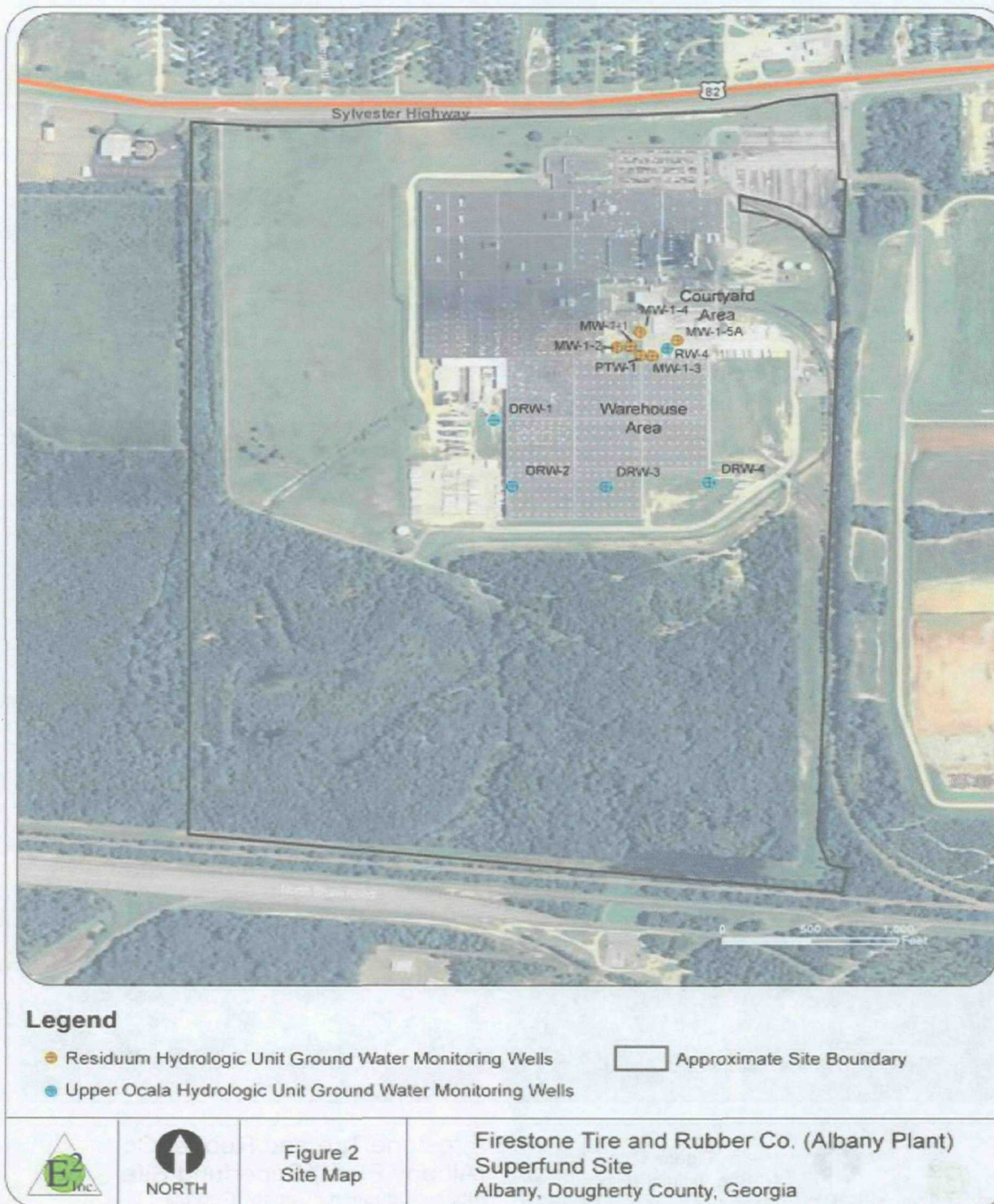
Recharge of ground water to the Residuum and the Ocala occurs mainly by infiltration of precipitation, which flows vertically downward. The Residuum provides recharge to the underlying Upper Ocala at a limited rate. Horizontal movement in the Residuum is limited by the lack of continuous water-bearing zones and low hydraulic conductivity zones. The hydrogeologic characterization of the Site performed during the 1993 ROD found that the horizontal ground water flow directions at the Site are variable including southwest-west flow directions in the northeast corner of the Site and west-southwest in the southwest corner. Local variations in groundwater flow direction that are not consistent with regional gradients are common in the upper portions of the Ocala.

Figure 1: Site Location Map



Disclaimer: This map and any boundary lines within the map are approximate and subject to change. The map is not a survey. The map is for informational purposes only regarding EPA's response actions at the Site, and is not intended for any other purpose.

Figure 2: Detailed Site Map



Disclaimer: This map and any boundary lines within the map are approximate and subject to change. The map is not a survey. The map is for informational purposes only regarding EPA's response actions at the Site, and is not intended for any other purpose.

3.2 Land and Resource Use

The Site remained inactive (except for cleanup activities) between 1986 and March 1992 when Cooper Tire and Rubber Co. purchased the facility from Bridgestone/Firestone Inc. (established in 1988) and began renovations for future operations. Until recently, Cooper Tire and Rubber Co. used the facility as a warehouse with few employees. The Site is currently zoned as an industrial area. The owner has no current plans for changing the use of the Site. The areas surrounding the Site consist of a mixture of commercial and residential areas to the north; commercial, agricultural and residential to the east; a large undeveloped area and commercial and residential areas to the west; and the U.S. Marine Corps Logistic Base (also a Superfund site) to the south. Currently, ground water use is restricted to purposes related to the remediation of the Site. The Site is served by city water and sewer.

3.3 History of Contamination

During the time when the contamination release events took place (circa 1980), the Site was owned by Albany-Dougherty Payroll Development Authority and was leased to Firestone for the sole use as a pneumatic tire manufacturing facility.

Manufacturing at the facility was carried out from 1968 to 1986 within a 1,840,000-square-foot building. Construction of the complex commenced in 1967 and several additions were built over the years. Firestone ceased operations at the Site in 1986. Later, in 1988, Firestone was acquired by the Bridgestone Group and became Bridgestone/Firestone Inc.. The Site is currently owned by Cooper Tire and Rubber Co.

The majority of the wastes and residues generated by production operations at the facility have been managed, treated and disposed of on site throughout the Site's history. The significant contaminated areas at the Site were:

- The courtyard area, where shipping, handling, and temporary storage of materials including hazardous substances occurred.
- The burn pit, which collected runoff from a 6,000-gallon spill of antioxidant (Santoflex 13) in 1980. The fluid was pumped into 65 partially filled 55-gallon drums and stored adjacent to the pit. The collected fluid in the pit was burned as a fire training exercise. Other waste materials characteristic of waste rubber cement and Banbury Sludge were buried in drums at the burn pit.

3.4 Initial Response

In 1985, Firestone voluntarily initiated a study of possible contamination in soil, ground water, and surface water as a part of facility closure. Based on the results of this assessment, a scope of work for further studies was defined. The study identified the courtyard and the burn pit as two major areas of contamination.

The first area of contamination, referred to as the courtyard, is located on the eastern side of the plant and is enclosed by the manufacturing buildings on three sides. The courtyard was designed for shipping and material handling operations. Materials used in the manufacturing processes and general facility operations were delivered to the courtyard by both rail and roadway. Underground storage tanks, which were removed in interim cleanup actions in 1986, were formerly located in two areas of the courtyard. Transformers mounted on concrete pads were also located in the courtyard. Four aboveground fuel oil storage tanks remain on site.¹

The second area of contamination, the burn pit area, covers about 3,000 square feet near the intersection of the east drainage ditch and the stormwater retention pond.

The Site was proposed for listing on the National Priorities List (NPL) in June 1988 and was finalized on the NPL in October 1989 as a result of environmental investigations conducted at the Site.

After the Site's inclusion on the NPL, EPA issued a special notice letter to Bridgestone/Firestone Inc. in March 1990, giving them an opportunity to conduct the remedial investigation/feasibility study (RI/FS) at the Site. The company entered into an administrative order on consent with EPA in 1990 to study the Site further and to evaluate potential alternatives to address any contamination found.

Bridgestone/Firestone Inc. took a series of interim cleanup measures, which included additional ground water monitoring to better define concerns identified in the 1985 study. The cleanup actions and studies that Bridgestone/Firestone Inc. conducted at the Site consisted mainly of the following activities:

- Identified and analyzed soil and debris piles, removed approximately 441 cubic yards of rubbish and debris and 105 cubic yards of soil and disposed of them at the Oxford Solid Waste Landfill in Albany, and disposed of empty 5-gallon containers and 55-gallon drums at a regulated facility in Alabama.
- Studied polychlorinated biphenyl (PCB) transformer leaks in the interior of the building, on the building, and in the courtyard; removed transformers, roof materials, and concrete pads; disposed of the transformers in a permitted facility; and cleaned up areas surrounding the former transformers.
- Installed monitoring wells in the Residuum and the Upper Ocala and collected soil samples in the courtyard to determine if the source area of the contamination would affect ground water.
- Removed underground storage tanks.
- Studied the burn pit/buried drum area; excavated the burn pit; removed and disposed of approximately 160 drums, which contained material similar to waste rubber cement and Banbury Sludge (material used to make tires), and

¹ An agreement to grant easements signed in 1990 between Albany Dougherty Payroll Development Authority, Cooper Tire and Rubber Co. (Cooper) and Bridgestone/Firestone Inc. allowed Cooper to install only above ground storage tanks within applicable environmental regulations and not use trichloroethane, dichloroethene, methylene chloride and perchloroethylene without permission of Bridgestone/Firestone Inc.

contaminated soil and water (all material passed landfill leaching simulation tests); and collected samples to determine the adequacy of the cleanup.

- Identified areas of potential subsurface drum disposal, which were evaluated by a magnetic survey. No additional buried drums or waste material were identified.
- Sampled surface water and sediments in the stormwater retention pond and drainage ditches flowing into the pond. No contaminants were found in surface water or sediments at concentrations that exceed a Hazard Quotient of one or an upper bound cancer risk of 1×10^{-6} .

Bridgestone/Firestone Inc. presented descriptions of their past investigations to EPA in a scoping document submitted in October 1990 as a preliminary remedial investigation report under the Administrative Order on Consent.

3.5 Basis for Taking Action

The RI/FS performed by Bridgestone/Firestone Inc. identified contaminants in ground water and PCB-contaminated soils.

The contaminants in ground water exceeded standards according to the Safe Drinking Water Act. These contaminants of concern (COCs) included antimony, benzene, beryllium, carbon disulfide, chromium, 1,1-dichloroethene (DCE), lead, PCBs and 1,1,1-trichloroethane (TCA).

The PCB-contaminated soils posed a threat to human health and the environment from possible ingestion, inhalation or dermal contact. The contaminated ground water was determined to pose a threat if it were to migrate off site or be used as a water source in the future.

4.0 Remedial Actions

In accordance with CERCLA and the NCP, the overriding goals for any remedial action are protection of human health and the environment and compliance with applicable or relevant and appropriate requirements (ARARs). A number of remedial alternatives were considered for the Site; final selection was made based on an evaluation of each alternative against nine evaluation criteria that are specified in Section 300.430(e)(9)(iii) of the NCP. The nine criteria include:

1. Overall protection of human health and the environment.
2. Compliance with ARARs.
3. Long-term effectiveness and permanence.
4. Reduction of toxicity, mobility or volume of contaminants through treatment.
5. Short-term effectiveness.
6. Implementability.
7. Cost.
8. State acceptance.
9. Community acceptance.

4.1 Remedy Selection

1993 ROD

The only record of decision (ROD) for the Site was signed on June 24, 1993. The remedial actions addressed by the 1993 ROD were selected to prevent future exposure to contaminants and to prevent their migration by addressing the remaining contamination of approximately 20 cubic yards of PCB-contaminated soil and volatile organic compounds in shallow ground water in the Residuum and Upper Ocala beneath the Site. The ROD specified the selected remedial actions for ground water (pump-and-treat) and soil in the courtyard area (excavation). The ROD also called for future study of carbon disulfide and four inorganic compounds that were detected in ground water during the remedial investigation, as their concentrations were above cleanup levels.

The selected remedial actions for this site included in the 1993 ROD were:

- Excavating and disposing of approximately 20 cubic yards of PCB-contaminated soil with concentrations above the cleanup goal of 10 milligrams per kilogram at an off-site Toxic Substances Control Act (TSCA)-permitted landfill.
- Backfilling the excavated areas with clean material.
- Extracting contaminated ground water and filtering out any solids using existing wells and supplemental wells if necessary.
- Treating the extracted ground water on site using air stripping.
- Off-site water discharge to a local publicly owned treatment works (POTW).
- Periodic ground water monitoring to assess the effectiveness of the remedy.
- Institutional controls to restrict well construction and water use on the Site.

EPA's cleanup goal for contaminated soils was based on reducing potential cancer risk to within range of 1×10^{-4} to 1×10^{-6} .

1996 Explanation of Significant Differences (ESD)

The 1996 ESD modified the 1993 ROD by changing the remedy to:

- Omit treatment of recovered ground water from the courtyard as long as the contaminant levels in the ground water effluent do not exceed permit discharge limits.
- Indicate that if at some point in the future the effluent should exceed the limits, the PRP would request that EPA allow the use of carbon filters instead of the air strippers required in the ROD.

This decision was based in an earlier agreement between Law Engineering, a contractor for the PRP, and Albany Public Works indicating that pretreatment of ground water would not be necessary as COCs had not been found in ground water samples during field investigations to support the cleanup design. The list of COCs is presented in Table 2.

Table 2: Contaminants of Concern

COC	1993 ROD Cleanup Goals (µg/L)
Antimony	6
Benzene	5
Beryllium	4
Carbon disulfide	56
Chromium	100
DCE	7
Lead	15
PCBs	0.5
TCA	200

4.2 Remedy Implementation

The remedy implementation was divided into two phases: soil cleanup and ground water cleanup.

Soil Cleanup

The remedial design for soils started in March 1994 and finished in April 1994. The PCB cleanup of soil in the courtyard area began in October 1994 and was completed in November 1994. The cleanup included removal of approximately 23 cubic yards of PCB-contaminated soils and off-site disposal, verification sampling and site restoration.

The excavated soil was taken to the Chemical Waste Management Facility, a TSCA-permitted facility in Emelle, Alabama. This facility is also permitted under Resource Conservation and Recovery Act Subtitle C.

EPA required the PRP to collect samples to ensure that the remaining soil had PCB levels below 10 parts per million. This cleanup goal was based on potential for cancer risk range of 1×10^{-4} to 1×10^{-6} . The PRP backfilled the excavated area with clean soil from an off-site borrow pit. The backfilled material was analyzed to ensure it did not have PCBs above the standard. The area was seeded and covered with straw as an erosion control measure.

EPA conducted pre-final inspections in October 1994 and final inspections in November 1994. Based on the analytical results, the objectives and requirements of the soil remediation work plan had been satisfied. No further soil cleanup or operation and maintenance (O&M) were required for this phase of the cleanup.

Ground Water Cleanup

The ground water monitoring study investigating the four inorganic elements and carbon disulfide was completed in 1995 and a revised report, Technical Memorandum Report (TMR) of the Inorganics Monitoring Study, was issued in May 1996. The revised TMR addressed EPA's comments on an earlier draft of the TMR. The study determined that the inorganic compounds and carbon disulfide were not present in ground water samples obtained from site monitoring wells at concentrations exceeding the ROD-specified cleanup levels. Previously detected, elevated concentrations of the inorganic compounds were the result of sediment entrained in the ground water samples due to surging of the wells during purging. The use of currently accepted sampling methods resolved this issue.

The ground water recovery system was constructed in 1997 in accordance with the EPA-approved remedial design documents. The final construction report was issued in January 1998 and one year of quarterly monitoring was initiated in September 1999. In accordance with the system performance standards, annual ground water monitoring of three COCs (benzene, DCE and TCA) began in September 2000 and continues. Monitoring of the ground water recovery systems is performed monthly. At the time of this FYR the pulse pumping system has been installed and is operating.

4.3 Operation and Maintenance (O&M)

The ground water recovery system has been operating as designed and established by the remedial action plan of 1996. Operation and maintenance procedures are ongoing on a periodic basis. The ground water remediation system is monitored monthly and water sampling is carried out annually. Even though there is no permanent monitoring presence at the Site, the ground water remediation system is kept operative by the PRP's O&M contractor, with few interruptions, through monthly inspections, repair and maintenance.

This system requires only minor maintenance and repairs to system components, including replacing the air compressor, air filters and oil.

The 1993 ROD estimated the costs of ground water remediation at \$1,880,000 or (\$62,700 per year for 30 years) and \$56,200 for soil remediation. The changes introduced by the 1996 ESD estimated the cost of groundwater remediation using carbon filters at \$753,000 (or \$25,100 per year; assuming 30 years since the timeframe was not included in the 1996 ESD) and \$671,000 (or \$22,400 per year) in case of direct discharge to the POTW. O&M of the ground water recovery system and ground water monitoring cost approximately \$45,000 per year for the last five-year period (including 2010), which is below the 1993 ROD-estimated cost of \$62,700 per year and above the costs estimated by the 1996 ESD (unadjusted for actual inflation rates). Maintenance costs for the recovery system have varied slightly from year to year as minor parts of the recovery system have required repair or replacement and one well had to be closed. According to the reports provided by the PRP contractor, these costs included regular maintenance of the remedial system and do not indicate any problems with the selected remedy.

Table 3: Annual O&M Costs, 2006-2010

Date Range	Total Cost (rounded to the nearest \$1,000)
2006	\$49,000
2007	\$41,000
2008	\$93,000
2009	\$32,000
2010 (through August)	\$14,000

5.0 Progress Since the Last Five-Year Review

The protectiveness statement from the 2005 FYR for the Site stated the following:

“The remedy at the Firestone Tire and Rubber Co. (Albany Plant) is expected to be protective upon completion and in the interim; exposure pathways that could result in unacceptable risk are being controlled.”

The 2005 FYR included one issue and one recommendation. This recommendation and its current status are discussed in Table 4.

Table 4: Progress on Recommendation from the 2005 FYR

Section	Recommendation	Party Responsible	Milestone Date	Action Taken and Outcome	Date of Action
5.1	Recommend periodic pulsing of the ground water recovery system with enhanced ground water monitoring to ensure the Site remains protective of human health and the environment.	PRP	04/17/2007	Monthly inspections of the pulse pump system are addressing maintenance issues of the system to keep it operational.	04/17/2007

5.1 Periodic Pulsing of the Ground Water Recovery System

Monitoring of the pulsing system has been carried out monthly by the PRP contractor during this FYR period. The reports provided recorded several maintenance activities related to the functioning of the pulse pump system's components and these have been addressed continuously. During the monthly system monitoring schedule, several parts of the system have been either repaired or replaced. The study to determine the effectiveness of the pulse pumping of the recovery wells is scheduled to be completed by February 2011. After the results of the study have been evaluated, EPA in consultation with GA EPD will determine the appropriate next steps for the system.

6.0 Five-Year Review Process

6.1 Administrative Components

EPA Region 4 initiated the FYR in July 2010 and scheduled its completion for December 2010. The EPA site review team was led by EPA remedial project manager (RPM) Charles King; EPA community involvement coordinator Kyle Bryant; and Treat Suomi and Luis Carrasco, E² Inc. employees providing contractor support to EPA. In July 2010, EPA held a scoping call with the review team to discuss the Site and items of interest as they related to the protectiveness of the remedy currently in place. A review schedule was established that consisted of the following activities:

- Community notification.
- Document review.
- Data collection and review.
- Site inspection.
- Local interviews.
- FYR report development and review.

6.2 Community Involvement

In August 2010, a public notice was published in the *Albany Herald* newspaper announcing the commencement of the FYR process for the Site, providing contact information for Charles King and Kyle Bryant, and inviting community participation. The press notice is available in Appendix B. No one has contacted EPA as a result of this advertisement.

The FYR report will be made available to the public once it has been finalized. Copies of this document will be placed in the site repository, when one is designated. Upon completion of the FYR, a public notice will be placed in the *Albany Herald* newspaper to announce the availability of the final FYR report in the Site's document repository.

6.3 Document Review

This FYR included a review of relevant site-related documents including the ROD, remedial action reports and recent monitoring data. A complete list of the documents reviewed can be found in Appendix A.

ARARs Review

Section 121(d)(2)(A) of CERCLA specifies that Superfund remedial actions must meet standards, requirements, criteria or limitations that are determined to be ARARs. ARARs are those standards, criteria or limitations promulgated under federal or state law that specifically address a hazardous substance, pollutant, contaminant, remedial action, location or other circumstance at a CERCLA site. To-be-considered criteria (TBCs) are non-promulgated advisories and guidance that are not legally binding, but should be

considered in determining the necessary level of cleanup for protection of human health or the environment. While TBCs do not have the status of ARARs, EPA's approach to determining if a remedial action is protective of human health and the environment involves consideration of TBCs along with ARARs.

Chemical-specific ARARs are specific numerical concentration restrictions on individually listed contaminants in specific media. Examples of chemical-specific ARARs include the maximum contaminant levels (MCLs) specified under the Safe Drinking Water Act as well as the ambient water quality criteria that are enumerated under the Clean Water Act. Because there are usually numerous contaminants of potential concern for any site impacting a range of environmental media, various numerical quantity requirements can be ARARs.

Soil ARARs

The Site's ROD identified the 10 mg/kg TSCA action level for PCBs as an appropriate cleanup level for Site soils. Soils contaminated above this level were excavated and disposed of off-site. The current TSCA action level for PCBs remains 10 mg/kg.

Ground Water ARARs

The Site's ROD established cleanup levels for nine ground water COCs: antimony, benzene, beryllium, carbon disulfide, chromium, DCE, lead, PCBs and TCA. The cleanup level for carbon disulfide is based on an acceptable risk-based standard. This review did not find any changes to the assumptions or parameters used to calculate this risk-based cleanup goal. Cleanup levels for seven COCs are based on federal Safe Drinking Water Act (40 CFR 141-143) MCLs. The cleanup level for lead is based on the federal action level in 56 FR – Maximum Contaminant Level Goals and National Primary Drinking Water Regulations for lead and copper. As part of this FYR, ARARs from the ROD were compared to current ARARs (Table 5). Chemical-specific ARARs for the Site remain unchanged.

Table 5: Summary of Ground Water ARAR Changes

COC	1993 ROD Cleanup Goal (µg/L)	Current ARARs ¹ (µg/L)	ARAR Change
Antimony	6	6	None
Beryllium	4	4	None
Benzene	5	5	None
Carbon disulfide	56 ²	NA ³	None
Chromium	100	100	None
DCE	7	7	None
PCBs	0.5	0.5	None
Lead	15 ⁴	15 ⁴	None
TCA	200	200	None

1. National Primary and Secondary Drinking Water MCLs are available at: <http://www.epa.gov/safewater/contaminants/index.html> (accessed 7/21/2010).

2. Cleanup goal based on a Hazard Index of one.

3. No MCL exists for carbon disulfide.

4. Lead is regulated by a treatment technique that requires systems to control the corrosiveness of their water. If more than 10 percent of tap water samples exceed the action level, water systems must take additional steps. The action level for lead is 15 µg/L.

6.4 Data Review

Soil

Soils contaminated above 10 mg/kg were excavated and disposed of off-site and backfilled areas were analyzed to ensure PCB concentrations were below the cleanup goal. Based on the 1994 analytical results, the objectives and requirements of the soil remediation work plan had been satisfied. No further cleanup or sampling was required for site soil.

Ground Water

This analysis is based on ground water monitoring data provided by the PRP contractor. Data are available for ground water COC sampling from August 1991 to September 2009. Ground water sample analysis for 2010 was not available at the time of this review.

The 11 ground water wells installed at the Site are divided in two groups: four remediation system wells and seven compliance wells. Ground water sampling has been performed annually since 2001. These wells extract ground water from the Residuum and the Upper Ocala. Ground water samples were analyzed for COCs. One of the compliance wells that samples ground water from the Residuum, MW-1-4, has not been sampled since 2006 because it has not contained a sufficient volume of water for sampling. No samples were taken in 2008 from the compliance well DRW-1, which extracts ground water from the Upper Ocala, because the well was inaccessible due to construction supplies and debris stored in the area at the time of sampling.

The annual reports included results for TCA, DCE and benzene. No other COCs were detected in ground water.

1,1,1-Trichloroethane (TCA)

This compound was not detected in any of the 2006-2009 samples (at a detection level of 1 µg/L). Wells MW-1-3 and PTW-1 (courtyard area) had TCA above the cleanup goal (200 µg/L) in 1991, but the concentrations of this COC have decreased since then (Table 6).

DCE

DCE was detected in three of the 10 wells sampled between 2006 and 2009, but concentrations only exceeded the cleanup goal in two wells (Table 7). This compound was detected above the cleanup goal (7 µg/L) in wells MW-1-3 and PTW-1 (within the courtyard area), although the concentrations of this compound have been decreasing in these wells since 1991. DCE concentrations were below cleanup goals in the remaining eight wells, including seven wells where DCE was not detected (at a detection level of 1 µg/L) from 2006 to 2009.

Benzene

Benzene was not detected in any of the samples taken between 2006 and 2009 (Table 8).

Overall, the sampling data suggest that COC concentrations in ground water from wells located in the courtyard area, which extract water from the Residuum, have decreased through time, at the same time that samples from the Upper Ocala did not detect migration of COCs from the Residuum.

Table 6: Concentrations of TCA in Ground Water at the Site in µg/L

Month/Year	Remediation System Wells				Compliance Wells						
	Residuuum				Upper Ocala						
	MW-1-1	MW-1-2	MW-1-3	PTW-1	MW-1-4	MW-1-5A	DRW-1	DRW-2	DRW-3	DRW-4	RW-4
8/1991	15	<5.0	560	220	<0.5			<5.0	<5.0	<5.0	<5.0
11/96	<5.0	<5.0	74.6	39.5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
9/1999	<1.0	<1.0	10 / 12	18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
12/1999	<1.0	<1.0	16 / 15	14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4/2000	<1.0	<1.0	7.9 / 7.9	13	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 / <1.0
6/2000	<1.0	<1.0	7.9 / 6.9	6	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 / <1.0
9/2000	<1.0	<1.0	11 / 12	6	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 / <1.0
9/2001	<1.0	<1.0	5.6 / 5.7	<10	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
9/2002	1.0/<1.0	--	<5.0	<10	--	<1.0	<1.0	<1.0/<1.0	<1.0	<1.0	<1.0
9/2003	1.2/<1.0	<1.0	1.2	1.9	<1.0	<1.0	<1.0	<1.0/<1.0	<1.0		<1.0
9/2004	<1.0	<1.0	<1.0	1.2/1.2	<1.0	<1.0	<1.0	<1.0/<1.0	<1.0	<1.0	<1.0
9/2005	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
9/2006	<1.0	<1.0	<1.0	1.0/<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
9/2007	<1.0	<1.0	<1.0	1.0/<1.0	--	<1.0	<1.0	<1.0/<1.0	<1.0	<1.0	<1.0
9/2008	<1.0	<1.0	<1.0	1.0/<1.0	--	<1.0	--	<1.0/<1.0	<1.0	<1.0	<1.0
9/2009	<1.0	<1.0	<1.0	1.0/<1.0	--	<1.0	<1.0	<1.0/<1.0	<1.0	<1.0	<1.0
*Cleanup goal: 200 µg/L Duplicate values (e.g., 1.0/<1.0) mean that field duplicate samples were collected from a single ground water sampling well. Shaded areas indicate concentrations above cleanup goal.											

Table 7: Concentrations of DCE in Ground Water at the Site in µg/L

Month/Year	Remediation System Wells						Compliance Wells				
	Residuum						Upper Ocala				
	MW-1-1	MW-1-2	MW-1-3	PTW-1	MW-1-4	MW-1-5A	DRW-1	DRW-2	DRW-3	DRW-4	RW-4
8/1991	6	<5.0	1400	130	24			<5.0	<5.0	<5.0	<5.0
11/96	<5.0	<5.0	648	397	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
9/1999	7.1	<1.0	220 / 290	520	2.4	4.7	<1.0	<1.0	<1.0	<1.0	<1.0
12/1999	12	<1.0	320 / 310	370	10	4.7	<1.0	<1.0	<1.0	<1.0	<1.0
4/2000	15	<1.0	200 / 200	540	--	3.9	<1.0	<1.0	<1.0	<1.0	<1.0 / <1.0
6/2000	15	<1.0	200 / 200	240	--	3.9	<1.0	<1.0	<1.0	<1.0	<1.0 / <1.0
9/2000	11	<1.0	230 / 260	290	--	2.7	<1.0	<1.0	<1.0	<1.0	<1.0 / <1.0
9/2001	8.9	<1.0	200 / 200	340	--	2.8	<1.0	<1.0	<1.0	<1.0	<1.0
9/2002	6.1/6.8	--	170	320	--	2.0	<1.0	<1.0/<1.0	<1.0	<1.0	<1.0
9/2003	<1.0/<1.0	<1.0	47	240	<1.0	3.1	<1.0	<1.0/1.4	<1.0		<1.0
9/2004	1.1	<1.0	8.7	88/100	<1.0	2.6	<1.0	<1.0/1.0	<1.0	<1.0	<1.0
9/2005	1.4	<1.0	46	95	<1.0	2.8	<1.0	<1.0	<1.0	<1.0	<1.0
9/2006	<1.0	<1.0	16	63/64	--	2.3	<1.0	<1.0	<1.0	<1.0	<1.0
9/2007	<1.0	<1.0	18	69/91	--	2.1	<1.0	<1.0/<1.0	<1.0	<1.0	<1.0
9/2008	<1.0	<1.0	11	80/77	--	1.7	--	<1.0/<1.0	<1.0	<1.0	<1.0
9/2009	<1.0	<1.0	10	77/60	--	2.0	<1.0	<1.0/<1.0	<1.0	<1.0	<1.0
<p>*Cleanup goal: 7 µg/L</p> <p>Duplicate values (e.g., 1.0/<1.0) mean that field duplicate samples were collected from a single ground water sampling well.</p> <p>Shaded areas indicate concentrations above cleanup goal.</p>											

Table 8: Concentrations of Benzene in Ground Water at the Site in µg/L

Month/Year	Remediation System Wells						Compliance Wells				
	Residuum						Upper Ocala				
	MW-1-1	MW-1-2	MW-1-3	PTW-1	MW-1-4	MW-1-5A	DRW-1	DRW-2	DRW-3	DRW-4	RW-4
8/1991	71	31	<5.0	<10	86			<5.0	<5.0	<5.0	<5.0
11/96	33.9	32.4	<5.0	<5.0	12.2	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
9/1999	7.8	2.4	<5.0 / <5.0	<10	9.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
12/1999	<1.0	<1.0	<1.0 / <1.0	<1.0	4.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4/2000	<1.0	<1.0	<5.0 / <5.0	<10	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 / <1.0
6/2000	<1.0	<1.0	<5.0 / <5.0	<5.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 / <1.0
9/2000	<1.0	<1.0	<5.0 / <5.0	<5.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 / <1.0
9/2001	<1.0	<1.0	<5.0 / <5.0	<10	--	<1.0	<1.0	4.2	<1.0	<1.0	<1.0
9/2002	<1.0<1.0	--	<5.0	<10	--	<1.0	<1.0	<1.0/<1.0	<1.0	<1.0	<1.0
9/2003	1.0/<1.0	<1.0	<1.0	<1.0	4.4	<1.0	2.2	<1.0/<1.0	<1.0		<1.0
9/2004	<1.0	<1.0	<1.0	1.0/<1.0	2.1	<1.0	<1.0	<1.0/<1.0	<1.0	<1.0	<1.0
9/2005	<1.0	1.0	<1.0	<1.0	1.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
9/2006	<1.0	<1.0	<1.0	1.0/<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
9/2007	<1.0	<1.0	<1.0	1.0/<1.0	--	<1.0	<1.0	<1.0/<1.0	<1.0	<1.0	<1.0
9/2008	<1.0	<1.0	<1.0	1.0/<1.0	--	<1.0	--	<1.0/<1.0	<1.0	<1.0	<1.0
9/2009	<1.0	<1.0	<1.0	1.0/<1.0	--	<1.0	<1.0	<1.0/<1.0	<1.0	<1.0	<1.0
<p>*Cleanup goal: 5 µg/L</p> <p>Duplicate values (e.g., 1.0/<1.0) mean that field duplicate samples were collected from a single ground water sampling well.</p> <p>Shaded areas indicate concentrations above cleanup goal.</p>											

6.5 Site Inspection

The FYR site inspection for the Site was held on July 15, 2010. In attendance were: Charles King, the EPA RPM; Allison Keefer and Thomas Brodell of GA EPD; Karl Sizemore and Buster Wisener of the Cooper Tire and Rubber Co.; and Treat Suomi and Luis Carrasco of E² Inc. Site participants met at the Site to discuss the current site conditions. Selected site photographs are included in Appendix E.

The Site is located in a former tire factory that until recently was used as a warehouse for tires and other equipment. There was no evidence of trespassing and the Site was completely fenced at the time of the inspection to prevent trespassing. The facility is guarded on a daily basis. The ground water wells that were identified were found to be locked, secured and labeled, with some exceptions that were communicated to the PRP representatives. One of the wells had standing water when it needed to be kept dry. State representatives indicated that other wells with standing water had been dried as a result of regular maintenance and better sealing of the caps. The site inspection participants also visited a section of the Site in a forested area where old ground water wells had been abandoned.

On July 14 and 15, 2010, E² Inc. staff visited the designated site repository, Dougherty County Library, as part of the site inspection. No documents related to this site were found; administrative staff mentioned that the library is no longer a government repository. EPA staff will be working to identify an appropriate location for the site repository and then provide site documents.

E² Inc. contractor staff conducted research at the Dougherty County Tax Assessors Office and found the deed information pertaining to the Site listed in Table 9.

Table 9: Deed Documents from Dougherty County Tax Assessors Office

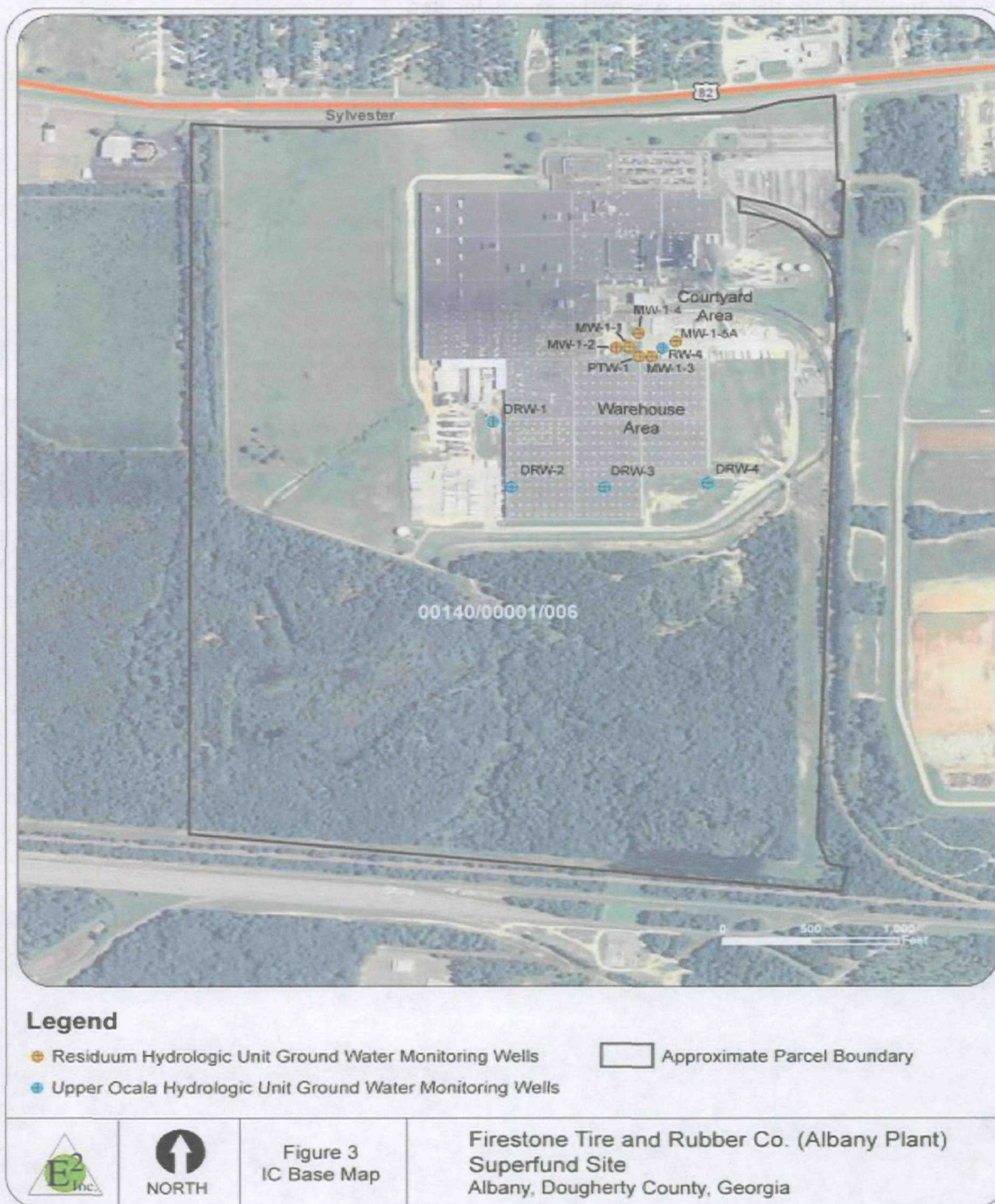
Date	Type of Document	Description	Book #	Page #
07/31/2009	Quit Claim Deed	Acquisition of property from Cooper Tire and Rubber Co. by Albany Dougherty Payroll Development Authority	3627	72-75
09/13/1994	Amendment to Lease Agreement	Includes restrictions on use of ground water for human consumption and installation of ground water wells	1421	255-256

Table 10 lists the institutional controls associated with areas of interest at the Site and Figure 3 shows the parcel where the Site is located.

Table 10: Institutional Control (IC) Summary Table

Area of Interest – OUI Ground Water					
Medium	ICs Needed	ICs Called for in the Decision Documents	Impacted Parcel(s)	IC Objective	Instrument in Place
Ground Water	Yes	Yes	0014000001006	Restricts installation of ground water wells and extraction of water from the Residuum and Upper Ocala hydrogeological units for human consumption or dermal contact	Amendment to lease agreement
Soil	No	No	Not applicable	Not applicable	None

Figure 3: Institutional Control Base Map



6.6 Interviews

During the FYR process, interviews were conducted with parties impacted by the Site, including the current landowners and regulatory agencies involved in Site activities or aware of the Site. The purpose of the interviews was to document the perceived status of the Site and any perceived problems or successes with the phases of the remedy that have been implemented to date. Most of the interviews were conducted during the site inspection on July 15, 2010. One interview, with the PRP's O&M contractor, was conducted via e-mail. Interviews are summarized below and complete interviews are included in Appendix C.

Charles King (EPA RPM)

Mr. King mentioned that the project is proceeding well, that it has made good progress and that ground water contaminants have remained in the courtyard area. He mentioned that there is still work to do to achieve ground water standards and that the PRP may have to decide about the future maintenance of the Site. He mentioned that the Site may have had no or minimal effect on the surrounding community, including the Marine Corps base nearby. Regarding the remedy applied, Mr. King mentioned that the data show that the remedy is effective, that it has reduced the concentration of COCs and that those concentrations may reach a plateau; however, there are a couple of COCs that are still a challenge. He was not aware of environmental issues or complaints and was comfortable with the ICs in place. Mr. King mentioned that it remains to be seen whether the pulse pump used to treat ground water works correctly or not. He stressed the need to make sure that communication is clear regarding any activity related to wells maintenance, and that wells with water needed to be treated as soon as possible.

Allison Keefer and Thomas Brodell (GA EPD)

The GA EPD representatives had a favorable impression of the Site; however, they mentioned that the wells could be better maintained as they are in a highly active area. They thought the remedy in place was working well but would like to see less activity in the area where wells are located. They were also comfortable with the ICs in place at the Site. They mentioned that GA EPD has inspected the Site every year for four years. They are not aware of any changes in projected land use at the Site. The GA EPD representatives mentioned that the ICs are working and have been improving in the last four years. They felt moderately informed about the activities and progress at the Site.

Buster Wisener (Cooper Tire and Rubber Co.)

Mr. Wisener had the impression that the project's remedy is performing well and that it had no effect on the surrounding community. He was not aware of any complaints or environmental issues. Mr. Wisener did not have any information regarding breaches of land use controls during the last five years and mentioned that all deep wells are closed. He was not aware of any land use changes at or near the Site and felt well informed about the Site's activities and progress.

Mary Ann Brookshire (Premier Environmental Services Inc., a PRP contractor)

Ms. Brookshire thinks that the project is going well. The concentrations of COCs have decreased substantially since the RI/FS. She believes that the constituent concentrations continue to attenuate through natural attenuation rather than the recovery system currently in place. EPA and GA EPD have agreed to allow Bridgestone/Firestone Inc. to conduct a study to evaluate the effectiveness of the recovery system and make recommendations. She also mentioned that there have not been any significant problems with the recovery system and that Premier Environmental Services Inc.'s technician conducts a monthly site visit to check the recovery system and record pulse pump counts. A local company performs routine maintenance of the air compressor on a quarterly basis and performs repairs on an as-needed basis. Ms. Brookshire also mentioned that a restriction on ground water use is in place at the site. This instrument restricts on-site ground water use and well installation as required by the ROD. There is not an inspection schedule. Premier Environmental Services Inc. is not aware of any breaches of land use controls since the last FYR. She also mentioned that Cooper Tire and Rubber Co., the owner of the Site, recently discontinued operations at the Site and is using the facility for storage with few employees. It will be important to communicate with Cooper Tire and Rubber Co. on a regular basis to maintain access to the Site.

7.0 Technical Assessment

7.1 Question A: Is the remedy functioning as intended by the decision documents?

The remedy specified in the 1993 ROD and 1996 ESD continues to be operating as designed. Soil remediation has been completed and ground water monitoring and remediation are ongoing. The monitoring data indicate that levels of COCs are declining in ground water. Similarly, the data suggest that there is no migration of COCs from the Residuum to the Upper Ocala, which indicates that the remaining ground water contamination seems to be contained effectively. One COC (DCE) is still above the cleanup goal (in two of the 10 wells sampled); however, its concentration is declining. The other two COCs, TCA and benzene, have not been detected in ground water during the monitoring period covering this FYR.

An amendment to a lease agreement restricted ground water use and consumption, as well as ground water well installation at the Site. These restrictions are in place in the form of protected and locked ground water wells. Access to the Site is controlled permanently and no breaches have been reported.

O&M procedures are occurring on a periodic basis. The ground water remediation system is monitored monthly and water sampling is carried out annually. Even though there is no permanent monitoring presence at the Site, the ground water remediation system is kept operative by the PRP's O&M contractor, with few interruptions, through monthly inspections, repair and maintenance. According to the PRPs contractor, Premier Environmental Services Inc., EPA and GA EPD have agreed to allow Bridgestone/Firestone Inc. to evaluate the effectiveness of the recovery system and make recommendations.

The monitoring equipment, in particular ground water wells, is exposed to heavy traffic of machinery and other equipment due to current activities at the Site. It has been reported during this FYR period that at least one well has been damaged and later repaired. Damage to the monitoring and remediation equipment could delay the progress of ground water remediation at the Site and should be prevented.

The 1993 ROD mentions that monitoring of a COC can be discontinued if this COC has not been detected above cleanup levels for three consecutive years. Since TCA and benzene have not been detected in ground water above cleanup goals during the last four years, it may be appropriate to discontinue their monitoring. Sampling of DCE should continue until its concentration is detected below cleanup goals for ground water for at least three years in a row as specified in the 1993 ROD.

7.2 Question B: Are the exposure assumptions, toxicity data, cleanup levels and remedial action objectives (RAOs) used at the time of remedy selection still valid?

The exposure assumptions, toxicity data, cleanup levels and RAOs used at the time of remedy selection are still valid. No standards identified in the 1993 ROD or in the 1996 ESD have changed or call into question the protectiveness of the remedy.

The primary COC in soils at the Site were PCBs, which are dioxin-like compounds. EPA's dioxin reassessment has been developed and undergone review over many years with the participation of scientific experts in EPA and other federal agencies, as well as scientific experts in the private sector and academia. EPA followed current cancer guidelines and incorporated the latest data and physiological/biochemical research into the assessment. The results of the assessment have currently not been finalized and have not been adopted into state or federal standards. EPA/OSWER has proposed to revise the interim preliminary remediation goals (PRGs) for dioxin and dioxin-like compounds, based on technical assessment of scientific and environmental data. However, EPA has not made any final decisions on interim PRGs at this time. Therefore, the dioxin toxicity reassessment for this Site will be updated during the next Five-Year Review.

The land use at the Site has not changed. Current land use near the Site does not differ significantly from the land use types described in pre-cleanup documents. The current land use near the Site is not expected to affect the effectiveness of the remedy.

The remedy is progressing as expected.

7.3 Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

No other information has come to light that could call into question the protectiveness of the remedy at the Site.

7.4 Technical Assessment Summary

The remedial actions specified in the 1993 ROD and 1996 ESD continue to be operating as designed. Soil remediation has been completed and ground water monitoring and remediation are ongoing. The monitoring data suggest that levels of COCs are declining in ground water. Similarly, the data suggest that there is no migration of COCs from the Residuam to the Upper Ocala, which indicates that the remaining ground water contamination seems to be contained effectively. One COC (DCE) is still above the cleanup goal (in two out of the 10 wells sampled); however, its concentration is declining. The other two COCs, TCA and benzene, have not been detected in ground water above the cleanup goals during the monitoring activities reported in this FYR.

Institutional controls to restrict ground water use and well installation are in place. O&M procedures are occurring on a regular basis. The ground water remediation system is monitored monthly and water sampling is carried out annually. The ground water

remediation system is kept operational by the PRP's O&M contractor, with monthly inspections, including routine repair and maintenance.

The 1993 ROD mentions that monitoring of a COC can be discontinued if the COC has not been detected above cleanup levels for three consecutive years. Since TCA and benzene have not been detected in ground water above cleanup goals during the last four years, it may be appropriate to discontinue their monitoring. Sampling of DCE should continue until its concentration is detected below cleanup goals for ground water for at least three years in a row as specified in the 1993 ROD.

The exposure assumptions, toxicity data, cleanup levels and RAOs used at the time of remedy selection are still valid. No standards identified in the 1993 ROD or in the 1996 ESD have changed.

The primary COC in soils at the Site were PCBs, which are dioxin-like compounds. EPA's dioxin reassessment has been developed and undergone review over many years with the participation of scientific experts in EPA and other federal agencies, as well as scientific experts in the private sector and academia. The results of the assessment have currently not been finalized and have not been adopted into state or federal standards. Therefore, the dioxin toxicity reassessment for this Site will be updated during the next Five-Year Review.

The land use at the Site has not changed. Current land use near the Site does not differ significantly from the land use types described in pre-cleanup documents.

Overall, the remedy is progressing as expected and no other information has come to light that could call into question the protectiveness of the remedy at the Site.

8.0 Issues

Table 11 summarizes the current site issues.

Table 11: Current Site Issues

Issue	Affects Current Protectiveness (Yes or No)	Affects Future Protectiveness (Yes or No)
Some ground water wells are exposed to heavy traffic at the Site and have been damaged. Some wells have water inside their access pits and are missing identification labels.	No	No

9.0 Recommendations and Follow-up Actions

Table 12 provides recommendations to address the current site issues.

Table 12: Recommendations to Address Current Site Issues

Issue	Recommendations/ Follow-Up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness? (Yes or No)	
					Current	Future
Some ground water wells are exposed to heavy traffic at the Site and have been damaged. Some wells have water inside their access pits and are missing identification labels.	Improve O&M by adopting measures to protect and maintain active ground water wells to ensure appropriate performance of the ground water remedial system.	PRP	EPA	01/01/2012	No	No

10.0 Protectiveness Statements

The remedy at the Site is protective of human health and the environment. Contaminated soils have been excavated and properly disposed of and no contaminants remain in this medium. Routine monitoring and O&M activities continue to ensure the effectiveness of the active ground water remedy. Institutional controls for ground water are in place through restrictions on ground water use and well installation as established by an amendment to a lease agreement. Exposure pathways that could result in unacceptable risks are being controlled.

11.0 Next Review

This Site requires ongoing FYRs as long as waste remaining on site that does not allow for unrestricted use and unlimited exposure. The next FYR will be due within five years of the signature/approval date of this FYR.

Appendix A: List of Documents Reviewed

Annual Ground Water Sampling Results (for September 25-26, 2006). Premier Environmental Services, Inc. November 8, 2006.

Annual Ground Water Sampling Results (for September 2007). Premier Environmental Services, Inc. October 31, 2007.

Annual Ground Water Sampling Results (for September 2008). Premier Environmental Services, Inc. January 22, 2009.

Annual Ground Water Sampling Results (for September 2009). Premier Environmental Services, Inc. December 1, 2009.

Conservation Land Maps. Georgia Wildlife Resources Division. Information accessed from website: <http://www.georgiawildlife.com/maps/conservation>. September 28, 2010.

Dougherty County Public Library (website). Information accessed from website: <http://www.docolib.org/research.html>. Visited July 2010.

EPA Superfund Record of Decision: Firestone Tire & Rubber Co. (Albany Plant). U.S. Environmental Protection Agency. June 24, 1993.

Firestone Tire & Rubber Co. Superfund Site. Explanation of Significant Difference Fact Sheet. U.S. Environmental Protection Agency. March 1996.

Five-Year Review Report. Firestone Tire & Rubber Site Co. U.S. Environmental Protection Agency. September 28, 2000.

Five-Year Review Report, Second Five-Year Review Report for Firestone Tire & Rubber Co. (Albany Plant). U.S. Environmental Protection Agency. December 21, 2005.

History. Bridgestone Corporation Website. Information accessed from website <http://www.bridgestone.com/corporate/history/index.html>. September 2010.

Monthly Remedial Action Progress Report (for January 2006). Premier Environmental Services, Inc. February 8, 2006.

Monthly Remedial Action Progress Report (for February and March 2006). Premier Environmental Services, Inc. July 24, 2006.

Monthly Remedial Action Progress Report (for April and May 2006). Premier Environmental Services, Inc. July 31, 2006.

Monthly Remedial Action Progress Report (for June, July and August 2006). Premier Environmental Services, Inc. September 20, 2006.

Monthly Remedial Action Progress Report (for September, October and November 2006). Premier Environmental Services, Inc. January 26, 2007.

Monthly Remedial Action Progress Report (for December 2006, January and February 2007). Premier Environmental Services, Inc. March 7, 2007.

Monthly Remedial Action Progress Report (for March 2007). Premier Environmental Services, Inc. April 4, 2007.

Monthly Remedial Action Progress Report (for April 2007). Premier Environmental Services, Inc. May 17, 2007.

Monthly Remedial Action Progress Report (for May 2007). Premier Environmental Services, Inc. June 11, 2007.

Monthly Remedial Action Progress Report (for June and July 2007). Premier Environmental Services, Inc. August 27, 2007.

Monthly Remedial Action Progress Report (for August and September 2007). Premier Environmental Services, Inc. November 5, 2007.

Monthly Remedial Action Progress Report (for October and November 2007). Premier Environmental Services, Inc. December 10, 2007.

Monthly Remedial Action Progress Report (for December 2007 and January 2008). Premier Environmental Services, Inc. January 29, 2007.

Monthly Remedial Action Progress Report (for February 2008). Premier Environmental Services, Inc. March 12, 2008.

Monthly Remedial Action Progress Report (for March and April 2008). Premier Environmental Services, Inc. May 13, 2008.

Monthly Remedial Action Progress Report (for May 2008). Premier Environmental Services, Inc. June 30, 2008.

Monthly Remedial Action Progress Report (for June and July 2008). Premier Environmental Services, Inc. August 18, 2008.

Monthly Remedial Action Progress Report (for August and September 2008). Premier Environmental Services, Inc. October 13, 2008.

Monthly Remedial Action Progress Report (for October 2008). Premier Environmental Services, Inc. November 5, 2008.

Monthly Remedial Action Progress Report (for November 2008). Premier Environmental Services, Inc. December 5, 2008.

Monthly Remedial Action Progress Report (for December 2008). Premier Environmental Services, Inc. January 23, 2008.

Monthly Remedial Action Progress Report (for January 2009). Premier Environmental Services, Inc. February 6, 2009.

Monthly Remedial Action Progress Report (for February and March 2009). Premier Environmental Services, Inc. March 25, 2009.

Monthly Remedial Action Progress Report (for April and May 2009). Premier Environmental Services, Inc. June 24, 2009.

Monthly Remedial Action Progress Report (for June and July 2009). Premier Environmental Services, Inc. August 19, 2009.

Monthly Remedial Action Progress Report (for August 2009). Premier Environmental Services, Inc. September 29, 2009.

Monthly Remedial Action Progress Report (for September 2009). Premier Environmental Services, Inc. October 26, 2009.

Monthly Remedial Action Progress Report (for October 2009). Premier Environmental Services, Inc. November 12, 2009.

Monthly Remedial Action Progress Report (for November and December 2009). Premier Environmental Services, Inc. February 4, 2010.

Monthly Remedial Action Progress Report (for January 2010). Premier Environmental Services, Inc. February 18, 2010.

Monthly Remedial Action Progress Report (for February 2010). Premier Environmental Services, Inc. April 19, 2010.

Monthly Remedial Action Progress Report (for March 2010). Premier Environmental Services, Inc. May 3, 2010.

Monthly Remedial Action Progress Report (for April 2010). Premier Environmental Services, Inc. May 17, 2010.

Monthly Remedial Action Progress Report (for May and June 2010). Premier Environmental Services, Inc. July 7, 2010.

Monthly Remedial Action Progress Report (for July 2010). Premier Environmental Services, Inc. August 9, 2010.

Search Superfund Site Information. U.S Environmental Protection Agency. Information accessed from website: <http://cfpub.epa.gov/supercpad/cursites/srchsites.cfm>. July-December 2010.

Soil Remediation Report - Bridgestone/Firestone Inc. Law Environmental. December 14, 1994.

Web Access to Property Records. Dougherty County Tax Assessors. Information accessed from website: http://qpublic3.qpublic.net/ga_search.php?county=ga_dougherty. Visited July-December 2010.

Appendix B: Press Notice

NOV 15 1999 11:15 AM



**U. S. Environmental Protection Agency, Region 4
Announces a Five-Year Review for the Firestone Tire and Rubber Co. (Albany Plant)
Superfund Site,
Albany, Dougherty County, Georgia**

Purpose/Objective: The U.S. Environmental Protection Agency (EPA) is conducting a Five-Year Review of the remedy for the Firestone Tire and Rubber Co. (Albany Plant) Superfund site (the Site) in Albany, Georgia. The purpose of the Five-Year Review is to ensure that the selected cleanup action effectively protects human health and the environment.

Site Background: The Site is located in Dougherty County, Georgia, approximately one mile east of the city of Albany, Georgia. A 329-acre facility constructed in 1967 was owned by the Albany-Dougherty Payroll Development Authority and was leased to the Firestone Tire and Rubber Company from 1968 to 1990. The facility included a 1.84 million square foot building with a courtyard area for material handling and shipping. Pneumatic tires were manufactured at the facility from 1968 until 1986, when Firestone Tire and Rubber Company ceased operations. Cooper Tire subsequently purchased the property and currently conducts tire manufacturing operations at the plant. In preparation for cessation of operations in 1986, Firestone voluntarily performed initial assessment activities of the facility's courtyard and dump pit in 1985. Based on the results of these initial assessment activities, Firestone voluntarily conducted several interim cleanup activities. A site inspection conducted in 1988 identified contamination remaining in soil and ground water. The primary contaminants of concern affecting the soil and ground water were determined to be volatile organic compounds; other organics, including polychlorinated biphenyls (PCBs); and metals, including chromium and lead. In 1989, the Site was listed as final on the National Priorities List.

Cleanup Actions: In 1993, EPA signed the Record of Decision for the Site to address contamination in soils and ground water. The selected remedy included the excavation and off-site disposal of the PCB-contaminated soils; replacement of the excavated soils with clean fill material; extraction and treatment of contaminated ground water using existing wells and supplemental wells, if necessary; treatment of contaminated ground water using on-site air stripping; discharge of treated ground water to the local Publicly-Owned Treatment Works (POTW); periodic ground water monitoring to assess the effectiveness of the cleanup approach; and implementation of institutional controls to restrict well construction and water use on the Site. An Explanation of Significant Difference was issued in 1996 that changed the cleanup approach to omit ground water treatment from the primary portion of the cleanup as long as the contaminant levels in the ground water do not exceed permit discharge limits for the POTW.

Five-Year Review Schedule: The National Contingency Plan requires that remedial actions resulting in any hazardous substances, pollutants or contaminants remaining at Superfund sites above levels that allow for unlimited use and unrestricted exposure be reviewed every five years to ensure the protection of human health and the environment. The second of these Five-Year Reviews for the Site will be completed by December 2010.

EPA invites community participation in the Five-Year Review process: EPA is conducting the Five-Year Review to evaluate the effectiveness of the Site remedy and to ensure that the remedy remains protective of human health and the environment. As part of the Five-Year Review process, EPA staff are available to answer any questions about the Site. Community members who have questions about the Site or the Five-Year Review process, or who would like to participate in a community interview, are asked to contact:

Charles King, Remedial Project Manager
Phone: 404-562-8931
E-mail: kking.charles@epa.gov

Kyle Bryant, Community Involvement Coordinator
Phone: 404-562-9073
E-mail: kyle.bryant@epa.gov

Mailing Address:
EPA Region 4
61 Forsyth St., S.W.
Atlanta, GA 30303-8960

Site information is also available at the local document repository, located at the Dougherty County Library, 100 Pine Ave., Albany, GA 31701, and online at (<http://www.epa.gov/region4/water/epf/npdes/atlanta.html>).

Appendix C: Interview Forms

Interview Form

2010 Five-Year Review – Firestone Tire & Rubber Co. (Albany Plant), Albany, GA

Site Name: Firestone Tire & Rubber Co. (Albany Plant)

EPA ID No.: GAD990855074

Interviewer Name: Treat Suomi Affiliation: E² Inc.

Subject's Name: Buster Wisener Affiliation: Cooper Tire and Rubber Co.

Subject's Contact Information: 229.516.0246

Time: 12:21 Date: 07/15/2010

Type of Interview (Circle one): In Person ☒ Phone ☐ Mail ☐ Other ☐

Location of Interview: At Site

Site Owners/PRPs

1. *What is your overall impression of the project?*
It's fine.
2. *What effect has this site had on the surrounding community, if any?*
None
3. *How well do you believe the remedy currently in place is performing?*
Good
4. *Are you aware of any complaints or inquiries regarding environmental issues or the remedial action from residents since implementation of the cleanup?*
No
5. *Which land use controls are currently in place at the Site? How are land use controls maintained and enforced? Is there an inspection schedule to ensure that land use controls have not been breached? Have there been any breaches of land use controls since the last Five-Year Review?*
Do not have any info, all deep wells are closed.
6. *Are you aware of any changes in projected land use at or near the site?*
No.
7. *Do you feel well informed about the site's activities and progress?*
Yes
8. *Do you have any comments, suggestions or recommendations regarding the site's management or operation?*
No

Site Name: Firestone Tire & Rubber Co. (Albany Plant)

EPA ID No.: GAD990855074

Interviewer Name: Luis Carrasco

Affiliation: E²Inc.

Subject's Name: Charles King

Affiliation: EPA

Subject's Contact Information: 404-562-8931

Time: 12:30

Date: 07/15/2010

Type of Interview (Circle one): In Person ☒ Phone ☐ Mail ☐ Other ☐

Location of Interview: At Site

RPM

1. *What is your overall impression of the project?*

The project is proceeding well. It has made good progress. There's still work to do in terms of achieving ground water standards, but Firestone may have to decide how long-term maintenance of the Site will be carried out.

2. *What effect has this site had on the surrounding community, if any?*

None or minimal. Ground water containment has remained in court yard area. Perhaps it had an effect on the Marine Corps area nearby.

3. *How well do you believe the remedy currently in place is performing? Do you believe the monitoring data show the remedy's effectiveness?*

Data show that the remedy is effective. It has reduced the levels of COCs but may reach a plateau. There are a couple of COCs that are still a challenge.

4. *Are you aware of any complaints or inquiries regarding environmental issues or the remedial action from residents since implementation of the cleanup?*

No.

5. *Are you comfortable with the status of the institutional controls at the Site? If no, what do you see as the outstanding issues?*

Yes.

6. *Are you aware of any changes in projected land use at or near the site?*

It is still to see if the pulse pump works or not.

7. *Do you feel well informed about the site's activities and progress?*

Yes, I feel like I've been informed well through monthly reports.

8. *Do you have any comments, suggestions or recommendations regarding the site's management or operation?*

- Make sure communication is clear when there is any activity related to wells maintenance.
- The wells with water inside their containment area need to be targeted as soon as possible.
- In general, the facility is functioning well.

Site Name: Firestone Tire & Rubber Co. (Albany Plant)

EPA ID No.: GAD990855074

Interviewer Name: Luis Carrasco

Affiliation: E²Inc.

Subject's Name: Allison Keefer and Thomas Brodell

Affiliation: GDNR

Subject's Contact Information: 404.651.9425

Time: 12:00

Date: 07/15/2010

Type of Interview (Circle one): In Person X Phone Mail Other _____

Location of Interview: At Site _____

State of Georgia

1. *What is your overall impression of the project?*
Favorable, the wells could be better maintained (i.e., labeled). Many of the wells are in highly active area.
2. *How well do you believe the remedy currently in place is performing?*
Really well, but would like to see less heavy equipment traffic in the area where the wells are located.
3. *Are you comfortable with the institutional controls required for the Site and their current status of implementation?*
Generally yes.
4. *Are you aware of any complaints or inquiries regarding environmental issues or the remedial action from residents in the last five years?*
No.
5. *Has your office conducted any site-related activities or communications in the last five years? If so, please give purpose and results of these activities.*
The DNR has been here every year for four years. There are routine facility inspections every federal fiscal year.
6. *Are you aware of any changes to state laws that might affect the protectiveness of the remedy? Are you aware of any changes in projected land use at the Site?*
No.
7. *Which land use controls are currently in place at the Site? How are land use controls maintained and enforced? Is there an inspection schedule to ensure that land use controls have not been breached? Have there been any breaches of land use controls since the last Five-Year Review?*

Wells locked, fence. There has been significant improvement in last four years.
8. *Do you feel well informed about the site's activities and progress?*
Yes. Moderately, we would like more information about progress.

9. *Do you have any comments, suggestions or recommendations regarding the Site's management or operation?*

No. However, the Site is inactive with exception of the warehouse area. There's not a permanent environmental presence. We are thrilled that the remediation is working.

Site Name: Firestone Tire & Rubber Co. (Albany Plant)

EPA ID No.: GAD990855074

Interviewer Name: _____

Affiliation: _____

Subject's Name: Mary Ann Brookshire

Affiliation: Premier Environmental Services, Inc.

Subject's Contact Information: 770-973-2100 ext 2880

Time: _____

Date: September 9, 2010

Type of Interview (Circle one): In Person Phone Mail Other Form

Location of Interview: _____

O&M Contractor

1. *What is your overall impression of the project?*
The project is going well. The concentrations of COCs have decreased substantially since the RI/FS. We believe that the constituent concentrations continue to attenuate through natural attenuation rather than the recovery system currently in place. EPA and GDNR have agreed to allow Bridgestone/Firestone Inc. to conduct a study to evaluate the effectiveness of the recovery system and make recommendations.
2. *Have any problems been encountered which required, or will require, changes to the site's remedial design or RODs?*
No. There have not been any significant problems with the recovery system.
3. *Have any problems or difficulties been encountered which have impacted construction progress or implementability?*
No
4. *Is there a continuous on-site O&M presence? If so, please describe staff and activities. If there is not a continuous on-site presence, describe staff and frequency of site inspections and activities.*
There is not a continuous presence on site. Premier's technician conducts a monthly site visit to check the recovery system and record pulse pump counts. A local company performs routine maintenance of the air compressor on a quarterly basis and performs repairs on an as-needed basis.
5. *Which land use controls are currently in place at the Site? How are land use controls maintained and enforced? Is there an inspection schedule to ensure that land use controls have not been breached? Have there been any breaches of land use controls since the last Five-Year Review?*
A deed document includes a restriction at the site. This control restricts on site ground water use and well installation as required by the ROD. There is not an inspection schedule. Premier is not aware of any breaches of land use controls since the last Five-Year Review.

6. *Do you feel well informed about the site's activities and progress?*

Yes

7. *Do you have any comments, suggestions or recommendations regarding the site's management or operation?*

The site is currently owned by Cooper Tire and Rubber Co.. Cooper recently discontinued operations at the Site and is using the facility for storage with few employees. It will be important to communicate with Cooper Tire on a regular basis to maintain access to the Site.

Appendix D: Site Inspection Checklist

FIVE-YEAR REVIEW SITE INSPECTION CHECKLIST															
I. SITE INFORMATION															
Site name: Firestone Tire & Rubber Co. (Albany Plant)		Date of inspection: July 15, 2010													
Location and Region: Albany, GA; Region 4		EPA ID: GAD990855074													
Agency, office, or company leading the Five-Year Review: EPA Region 4		Weather/temperature: Clear skies, sunny, 95°F													
Remedy Includes: (Check all that apply) <table border="0"> <tr> <td><input type="checkbox"/> Landfill cover/containment</td> <td><input type="checkbox"/> Monitored natural attenuation</td> </tr> <tr> <td><input type="checkbox"/> Access controls</td> <td><input checked="" type="checkbox"/> Groundwater containment</td> </tr> <tr> <td><input checked="" type="checkbox"/> Institutional controls</td> <td><input type="checkbox"/> Vertical barrier walls</td> </tr> <tr> <td><input checked="" type="checkbox"/> Groundwater pump and treatment</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Surface water collection and treatment</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Other _____</td> <td></td> </tr> </table>				<input type="checkbox"/> Landfill cover/containment	<input type="checkbox"/> Monitored natural attenuation	<input type="checkbox"/> Access controls	<input checked="" type="checkbox"/> Groundwater containment	<input checked="" type="checkbox"/> Institutional controls	<input type="checkbox"/> Vertical barrier walls	<input checked="" type="checkbox"/> Groundwater pump and treatment		<input type="checkbox"/> Surface water collection and treatment		<input type="checkbox"/> Other _____	
<input type="checkbox"/> Landfill cover/containment	<input type="checkbox"/> Monitored natural attenuation														
<input type="checkbox"/> Access controls	<input checked="" type="checkbox"/> Groundwater containment														
<input checked="" type="checkbox"/> Institutional controls	<input type="checkbox"/> Vertical barrier walls														
<input checked="" type="checkbox"/> Groundwater pump and treatment															
<input type="checkbox"/> Surface water collection and treatment															
<input type="checkbox"/> Other _____															
Attachments: <input type="checkbox"/> Inspection team roster attached <input type="checkbox"/> Site map attached															
II. INTERVIEWS (Check all that apply)															
1. O&M site manager	<u>Karl Sizemore</u>	<u>Department Manager</u>	<u>07/15/2010</u>												
	Name	Title	Date												
Interviewed <input type="checkbox"/> at site <input type="checkbox"/> at office <input type="checkbox"/> by phone Phone no. _____															
Problems, suggestions; <input type="checkbox"/> Report attached _____															
2. O&M staff	<u>Buster Wisener</u>	<u>Superintendent</u>	<u>07/15/2010</u>												
	Name	Title	Date												
Interviewed <input checked="" type="checkbox"/> at site <input type="checkbox"/> at office <input type="checkbox"/> by phone Phone no. _____															
Problems, suggestions; <input checked="" type="checkbox"/> Report attached <u>See Appendix C</u>															

3. **Local regulatory authorities and response agencies** (i.e., State and Tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices, etc.). Fill in all that apply.

Agency Georgia Environmental Protection Division

Contact Allison Keefer

Geologist

07/15/2010

404-651-9425

Name

Title

Date

Phone No.

Problems; suggestions; ☒ Report attached see Appendix C

Agency Georgia Environmental Protection Division

Contact Thomas Brodell

Environmental

07/15/2010

404-651-9425

Name

Engineer

Title

Date

Phone No.

Problems; suggestions; ☒ Report attached see Appendix C

Agency _____

Contact _____

Name

Title

Date

Phone No.

Problems; suggestions; ☐ Report attached

Agency _____

Contact _____

Name

Title

Date

Phone No.

Problems; suggestions; ☐ Report attached

Agency _____

Contact _____

Name

Title

Date

Phone No.

Problems; suggestions; ☐ Report attached

4. **Other interviews** (optional) ☒ Report attached

EPA Region 4: RPM Charles King, 07/15/2010, 404-562-8931

PRP/O&M Contractor: Mary Ann Brookshire, 09/9/2010

III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)

1. O&M Documents

☐ O&M manual

☐ Readily available

☐ Up to date

☒ N/A

☐ As-built drawings

☐ Readily available

☐ Up to date

☒ N/A

☐ Maintenance logs

☐ Readily available

☐ Up to date

☒ N/A

Remarks: _____

2. Site-Specific Health and Safety Plan

☐ Readily available

☐ Up to date

☐ N/A

☐ Contingency plan/emergency response plan

☐ Readily available

☐ Up to date

☐ N/A

Remarks: _____

3. O&M and OSHA Training Records

☐ Readily available

☐ Up to date

☐ N/A

Remarks: _____

4. Permits and Service Agreements			
<input type="checkbox"/> Air discharge permit	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Effluent discharge	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
<input checked="" type="checkbox"/> Waste disposal, POTW	<input checked="" type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Other permits _____	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: _____			
5. Gas Generation Records			
	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Remarks: _____			
6. Settlement Monument Records			
	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: _____			
7. Groundwater Monitoring Records			
	<input checked="" type="checkbox"/> Readily available	<input checked="" type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Remarks: _____			
8. Leachate Extraction Records			
	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: _____			
9. Discharge Compliance Records			
<input type="checkbox"/> Air	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Water (effluent)	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Remarks: _____			
10. Daily Access/Security Logs			
	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: _____			
IV. O&M COSTS			
1. O&M Organization			
<input type="checkbox"/> State in-house	<input type="checkbox"/> Contractor for State		
<input type="checkbox"/> PRP in-house	<input checked="" type="checkbox"/> Contractor for PRP		
<input type="checkbox"/> Federal Facility in-house	<input type="checkbox"/> Contractor for Federal Facility		

2. O&M Cost Records			
<input checked="" type="checkbox"/> Readily available		<input type="checkbox"/> Up to date	
<input type="checkbox"/> Funding mechanism/agreement in place		<input type="checkbox"/> Unavailable	
Original O&M cost estimate <u>\$66,000/year for 30 years</u> <input type="checkbox"/> Breakdown attached			
Total annual cost by year for review period if available			
From <u>Jan/01/2006</u>	To <u>Dec/31/2006</u>	<u>\$49,000</u>	<input type="checkbox"/> Breakdown attached
Date	Date	Total cost	
From <u>Jan/01/2007</u>	To <u>Dec/31/2007</u>	<u>\$41,000</u>	<input type="checkbox"/> Breakdown attached
Date	Date	Total cost	
From <u>Jan/01/2008</u>	To <u>Dec/31/2008</u>	<u>\$93,000</u>	<input type="checkbox"/> Breakdown attached
Date	Date	Total cost	
From <u>Jan/01/2009</u>	To <u>Dec/31/2009</u>	<u>\$32,000</u>	<input type="checkbox"/> Breakdown attached
Date	Date	Total cost	
From <u>Jan/01/2010</u>	To <u>Aug/31/2010</u>	<u>\$14,000</u>	<input type="checkbox"/> Breakdown attached
Date	Date	Total cost	
3. Unanticipated or Unusually High O&M Costs During Review Period			
Describe costs and reasons: _____			
V. ACCESS AND INSTITUTIONAL CONTROLS <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A			
A. Fencing			
1. Fencing damaged		<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> Gates secured <input checked="" type="checkbox"/> N/A
Remarks: Site is fenced			
B. Other Access Restrictions			
1. Signs and other security measures		<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> N/A
Remarks: On site security guards			
C. Institutional Controls (ICs)			

1. Implementation and enforcement			
Site conditions imply ICs not properly implemented		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Site conditions imply ICs not being fully enforced		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Type of monitoring (e.g., self-reporting, drive by)			
Frequency			
Responsible party/agency			
Contact	<u>Mary Ann Brookshire</u>	O&M Contractor	<u>09/09/2010</u> <u>770-973-2100 ext 2880</u>
Name		Title	Date
Reporting is up-to-date			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Reports are verified by the lead agency			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Specific requirements in deed or decision documents have been met			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Violations have been reported			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Other problems or suggestions: <input type="checkbox"/> Report attached			
Improve care of monitoring wells since they are exposed to damage by operations at Site.			
2. Adequacy <input checked="" type="checkbox"/> ICs are adequate <input type="checkbox"/> ICs are inadequate <input type="checkbox"/> N/A			
Remarks: _____			
D. General			
1. Vandalism/trespassing <input type="checkbox"/> Location shown on site map <input checked="" type="checkbox"/> No vandalism evident			
2. Land use changes on site <input checked="" type="checkbox"/> N/A			
Remarks: <u>Current owner may have plans for the Site, and O&M needs to continue if land changes owner in the future</u>			
3. Land use changes off site <input checked="" type="checkbox"/> N/A			
Remarks: _____			
VI. GENERAL SITE CONDITIONS			
A. Roads <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A			
1. Roads damaged <input type="checkbox"/> Location shown on site map <input checked="" type="checkbox"/> Roads adequate <input type="checkbox"/> N/A			
Remarks: _____			
B. Other Site Conditions			
Remarks: _____			
VII. LANDFILL COVERS <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A			
A. Landfill Surface			

1. Settlement (Low spots) Aerial extent _____ Remarks: _____	<input type="checkbox"/> Location shown on site map <input type="checkbox"/> Cracking not evident Depths _____	<input type="checkbox"/> Settlement not evident Depth <u>2 feet</u>
2. Cracks Lengths _____ Remarks: _____	<input type="checkbox"/> Location shown on site map Widths _____	<input type="checkbox"/> Cracking not evident Depths _____
3. Erosion Aerial extent _____ Remarks: _____	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> Erosion not evident Depth _____
4. Holes Aerial extent _____ Remarks: _____	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> Holes not evident Depth _____
5. Vegetative Cover <input type="checkbox"/> No signs of stress Remarks: _____		
<input type="checkbox"/> Grass <input type="checkbox"/> Trees/Shrubs (indicate size and locations on a diagram)		<input type="checkbox"/> Cover properly established
6. Alternative Cover (armored rock, concrete, etc.) Remarks: _____		<input type="checkbox"/> N/A
7. Bulges Aerial extent _____ Remarks: _____	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> Bulges not evident Height _____
8. Wet Areas/Water Damage <input type="checkbox"/> Wet areas <input type="checkbox"/> Ponding <input type="checkbox"/> Seeps <input type="checkbox"/> Soft subgrade Remarks: _____		
<input type="checkbox"/> Wet areas/water damage not evident <input type="checkbox"/> Location shown on site map <input type="checkbox"/> Location shown on site map <input type="checkbox"/> Location shown on site map <input type="checkbox"/> Location shown on site map		Aerial extent _____ Aerial extent _____ Aerial extent _____ Aerial extent _____
9. Slope Instability <input type="checkbox"/> No evidence of slope instability Aerial extent _____ Remarks: _____		<input type="checkbox"/> Slides <input type="checkbox"/> Location shown on site map
B. Benches <input type="checkbox"/> Applicable <input type="checkbox"/> N/A (Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)		
1. Flows Bypass Bench Remarks: _____		
<input type="checkbox"/> Location shown on site map		<input type="checkbox"/> N/A or okay

2.	Bench Breached	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> N/A or okay
Remarks: _____			
3.	Bench Overtopped	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> N/A or okay
Remarks: _____			
C. Letdown Channels		<input type="checkbox"/> Applicable	<input type="checkbox"/> N/A
(Channel lined with erosion control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)			
1.	Settlement (Low spots)	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> No evidence of settlement
Aerial extent _____		Depth _____	
Remarks: _____			
2.	Material Degradation	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> No evidence of degradation
Material type _____		Aerial extent _____	
Remarks: _____			
3.	Erosion	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> No evidence of erosion
Aerial extent _____		Depth _____	
Remarks: _____			
4.	Undercutting	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> No evidence of undercutting
Aerial extent _____		Depth _____	
Remarks: _____			
5.	Obstructions	Type _____	<input type="checkbox"/> No obstructions
<input type="checkbox"/> Location shown on site map		Aerial extent _____	
Size _____			
Remarks: _____			
6.	Excessive Vegetative Growth	Type _____	
<input type="checkbox"/> No evidence of excessive growth			
<input type="checkbox"/> Vegetation in channels does not obstruct flow			
<input type="checkbox"/> Location shown on site map		Aerial extent _____	
Remarks: _____			
D. Cover Penetrations		<input type="checkbox"/> Applicable	<input type="checkbox"/> N/A
1.	Gas Vents	<input type="checkbox"/> Active	<input type="checkbox"/> Passive
<input type="checkbox"/> Properly secured/locked		<input type="checkbox"/> Functioning	<input type="checkbox"/> Routinely sampled
<input type="checkbox"/> Evidence of leakage at penetration		<input type="checkbox"/> Good condition	<input type="checkbox"/> Needs Maintenance
		<input type="checkbox"/> N/A	
Remarks: _____			

2. Gas Monitoring Probes <input type="checkbox"/> Properly secured/locked <input type="checkbox"/> Functioning <input type="checkbox"/> Routinely sampled <input type="checkbox"/> Good condition <input type="checkbox"/> Evidence of leakage at penetration <input type="checkbox"/> Needs Maintenance <input type="checkbox"/> N/A Remarks: _____			
3. Monitoring Wells (within surface area of landfill) <input type="checkbox"/> Properly secured/locked <input type="checkbox"/> Functioning <input type="checkbox"/> Routinely sampled <input type="checkbox"/> Good condition <input type="checkbox"/> Evidence of leakage at penetration <input type="checkbox"/> Needs Maintenance <input type="checkbox"/> N/A Remarks: _____			
4. Extraction Wells Leachate <input type="checkbox"/> Properly secured/locked <input type="checkbox"/> Functioning <input type="checkbox"/> Routinely sampled <input type="checkbox"/> Good condition <input type="checkbox"/> Evidence of leakage at penetration <input type="checkbox"/> Needs Maintenance <input type="checkbox"/> N/A Remarks: _____			
5. Settlement Monuments <input type="checkbox"/> Located <input type="checkbox"/> Routinely surveyed <input type="checkbox"/> N/A Remarks: _____			
E. Gas Collection and Treatment <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A			
1. Gas Treatment Facilities <input type="checkbox"/> Flaring <input type="checkbox"/> Thermal destruction <input type="checkbox"/> Collection for reuse <input type="checkbox"/> Good condition <input type="checkbox"/> Needs Maintenance Remarks: _____			
2. Gas Collection Wells, Manifolds and Piping <input type="checkbox"/> Good condition <input type="checkbox"/> Needs Maintenance Remarks: _____			
3. Gas Monitoring Facilities (e.g., gas monitoring of adjacent homes or buildings) <input type="checkbox"/> Good condition <input type="checkbox"/> Needs Maintenance <input type="checkbox"/> N/A Remarks: _____			
F. Cover Drainage Layer <input type="checkbox"/> Applicable <input type="checkbox"/> N/A			
1. Outlet Pipes Inspected <input type="checkbox"/> Functioning <input type="checkbox"/> N/A Remarks: _____			
2. Outlet Rock Inspected <input type="checkbox"/> Functioning <input type="checkbox"/> N/A Remarks: _____			
G. Detention/Sedimentation Ponds <input type="checkbox"/> Applicable <input type="checkbox"/> N/A			
1. Siltation Area extent _____ Depth _____ <input type="checkbox"/> N/A <input type="checkbox"/> Siltation not evident Remarks: _____			

2.	Erosion	Area extent _____	Depth _____	
<input type="checkbox"/> Erosion not evident				
Remarks: _____				
3.	Outlet Works	<input type="checkbox"/> Functioning		<input type="checkbox"/> N/A
Remarks: _____				
4.	Dam	<input type="checkbox"/> Functioning		<input type="checkbox"/> N/A
Remarks: _____				
H. Retaining Walls		<input type="checkbox"/> Applicable	<input type="checkbox"/> N/A	
1.	Deformations	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> Deformation not evident	
Horizontal displacement _____		Vertical displacement _____		
Rotational displacement _____				
Remarks: _____				
2.	Degradation	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> Degradation not evident	
Remarks: _____				
I. Perimeter Ditches/Off-Site Discharge		<input type="checkbox"/> Applicable	<input type="checkbox"/> N/A	
1.	Siltation	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> Siltation not evident	
Area extent _____		Depth _____		
Remarks: _____				
2.	Vegetative Growth	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> N/A	
<input type="checkbox"/> Vegetation does not impede flow				
Area extent _____		Type _____		
Remarks: _____				
3.	Erosion	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> Erosion not evident	
Area extent _____		Depth _____		
Remarks: _____				
4.	Discharge Structure	<input type="checkbox"/> Functioning	<input type="checkbox"/> N/A	
Remarks: _____				
VIII. VERTICAL BARRIER WALLS		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A	
1.	Settlement	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> Settlement not evident	
Area extent _____		Depth _____		
Remarks: _____				

2. Performance Monitoring <input type="checkbox"/> Performance not monitored Frequency _____ Head differential _____ Remarks: _____	Type of monitoring _____ <input type="checkbox"/> Evidence of breaching
IX. GROUNDWATER/SURFACE WATER REMEDIES <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A	
A. Groundwater Extraction Wells, Pumps, and Pipelines <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A	
1. Pumps, Wellhead Plumbing, and Electrical <input checked="" type="checkbox"/> Good condition <input checked="" type="checkbox"/> All required wells properly operating <input type="checkbox"/> Needs Maintenance <input type="checkbox"/> N/A Remarks: These items are secured as part of the remedy	
2. Extraction System Pipelines, Valves, Valve Boxes, and Other Appurtenances <input checked="" type="checkbox"/> Good condition <input type="checkbox"/> Needs Maintenance Remarks: <u>Most wells are in good condition but some need better cap sealing and labeling.</u>	
3. Spare Parts and Equipment <input checked="" type="checkbox"/> Readily available <input type="checkbox"/> Good condition <input type="checkbox"/> Requires upgrade <input type="checkbox"/> Needs to be provided Remarks: <u>Equipment is requested when needed during monthly inspections</u>	
B. Surface Water Collection Structures, Pumps, and Pipelines <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A	
1. Collection Structures, Pumps, and Electrical <input checked="" type="checkbox"/> Good condition <input type="checkbox"/> Needs Maintenance Remarks: _____	
2. Surface Water Collection System Pipelines, Valves, Valve Boxes, and Other Appurtenances <input type="checkbox"/> Good condition <input type="checkbox"/> Needs Maintenance Remarks: _____	
3. Spare Parts and Equipment <input type="checkbox"/> Readily available <input type="checkbox"/> Good condition <input type="checkbox"/> Requires upgrade <input type="checkbox"/> Needs to be provided Remarks: _____	
C. Treatment System <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A	

<p>1. Treatment Train (Check components that apply)</p> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input type="checkbox"/> Metals removal</div> <div style="width: 33%;"><input type="checkbox"/> Oil/water separation</div> <div style="width: 33%;"><input type="checkbox"/> Bioremediation</div> <div style="width: 33%;"><input type="checkbox"/> Air stripping</div> <div style="width: 33%;"><input checked="" type="checkbox"/> Carbon adsorbers</div> <div style="width: 33%;"><input type="checkbox"/> Filters _____</div> <div style="width: 33%;"><input type="checkbox"/> Additive (e.g., chelation agent, flocculent) _____</div> <div style="width: 33%;"><input type="checkbox"/> Others _____</div> <div style="width: 33%;"><input checked="" type="checkbox"/> Good condition</div> <div style="width: 33%;"><input type="checkbox"/> Needs Maintenance</div> <div style="width: 33%;"><input type="checkbox"/> Sampling ports properly marked and functional</div> <div style="width: 33%;"><input type="checkbox"/> Sampling/maintenance log displayed and up to date</div> <div style="width: 33%;"><input type="checkbox"/> Equipment properly identified</div> <div style="width: 33%;"><input type="checkbox"/> Quantity of groundwater treated annually _____</div> <div style="width: 33%;"><input type="checkbox"/> Quantity of surface water treated annually _____</div> </div> <p>Remarks: <u>Carbon adsorbers or filters are used when COC in ground water are above cleanup goals</u></p>
<p>2. Electrical Enclosures and Panels (properly rated and functional)</p> <div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Good condition <input type="checkbox"/> Needs Maintenance </div> <p>Remarks: _____</p>
<p>3. Tanks, Vaults, Storage Vessels</p> <div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Good condition <input type="checkbox"/> Proper secondary containment <input type="checkbox"/> Needs Maintenance </div> <p>Remarks: _____</p>
<p>4. Discharge Structure and Appurtenances</p> <div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Good condition <input type="checkbox"/> Needs Maintenance </div> <p>Remarks: _____</p>
<p>5. Treatment Building(s)</p> <div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Good condition (esp. roof and doorways) <input type="checkbox"/> Needs repair </div> <p><input type="checkbox"/> Chemicals and equipment properly stored</p> <p>Remarks: _____</p>
<p>6. Monitoring Wells (pump and treatment remedy)</p> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 25%;"><input checked="" type="checkbox"/> Properly secured/locked</div> <div style="width: 25%;"><input checked="" type="checkbox"/> Functioning</div> <div style="width: 25%;"><input checked="" type="checkbox"/> Routinely sampled</div> <div style="width: 25%;"><input checked="" type="checkbox"/> Good condition</div> <div style="width: 25%;"><input checked="" type="checkbox"/> All required wells located</div> <div style="width: 25%;"><input checked="" type="checkbox"/> Needs Maintenance</div> <div style="width: 25%;"><input type="checkbox"/> N/A</div> </div> <p>Remarks: <u>Some of the wells needed better protection from rain water and from heavy transit</u></p>
<p>D. Monitoring Data</p>
<p>1. Monitoring Data</p> <div style="display: flex; justify-content: space-between;"> <input checked="" type="checkbox"/> Is routinely submitted on time <input type="checkbox"/> Is of acceptable quality </div>
<p>2. Monitoring data suggest:</p> <div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> Groundwater plume is effectively contained <input checked="" type="checkbox"/> Contaminant concentrations are declining </div>

E. Monitored Natural Attenuation			
I. Monitoring Wells (natural attenuation remedy)			
<input checked="" type="checkbox"/> Properly secured/locked	<input checked="" type="checkbox"/> Functioning	<input checked="" type="checkbox"/> Routinely sampled	<input checked="" type="checkbox"/> Good condition
<input type="checkbox"/> All required wells located	<input type="checkbox"/> Needs Maintenance	<input type="checkbox"/> N/A	
Remarks: <u>One well has been consistently dry during the monitoring period</u>			
X. OTHER REMEDIES			
If there are remedies applied at the site and not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.			
XI. OVERALL OBSERVATIONS			
A. Implementation of the Remedy			
Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.). <u>In general, ground water wells were secured a few ground water wells had minor maintenance issues.</u>			
B. Adequacy of O&M			
Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy. <u>Remedy is adequate. COCs levels are declining. Only one COC has been detected on this FYR period.</u>			
C. Early Indicators of Potential Remedy Problems			
Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future. _____			
D. Opportunities for Optimization			
Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy. <u>Could concentrate monitoring on DCE since TCA and benzene have not been detected in this FYR.</u>			

Appendix E: Photographs from Site Inspection Visit



Covered monitoring well.



Labeled monitoring well at Site. Notice silicon caps to protect well from rain water.



Well opened during inspection showing interior area free of water.



Well opened during inspection showing rain water inside compartment.



Well concrete pad showing a cracked corner probably caused by heavy transportation.



Location of a closed monitoring well in southern section of the Site.



Inspection of monitoring well inside storage area at the Site.



Former location of closed wells near center of the Site.

Appendix F: Site Deed Documents

BOOK 3627 PAGE 72

DOCN 005737
FILED IN OFFICE
07/31/2009 04:15 PM
BK:3627 PG:72-75
EYONNE S. MULL
CLERK OF COURT
DOUGHERTY COUNTY
E. S. Mull
REAL ESTATE TRANSFER TAX
PAID: \$0.00

QUIT CLAIM DEED

GEORGIA,
DOUGHERTY COUNTY:

THIS INDENTURE, made the 31st day of March, 2009, between ALBANY DOUGHERTY PAYROLL DEVELOPMENT AUTHORITY, a public body corporate and politic created and existing under the laws of the State of Georgia, as party of the first part, hereinafter called Grantor, and COOPER TIRE & RUBBER COMPANY, a Delaware corporation, as party of the second part, hereinafter called Grantee.

WITNESSETH:

Grantee having exercised its option to acquire the property described herein, Grantor is hereby conveying to Grantee all of its right, title and interest in and to the described property.

Therefore Grantor, for and in consideration of the sum of ONE HUNDRED DOLLARS (\$100.00) and other valuable consideration, in hand paid at and before the sealing and delivery of these presents, the receipt and sufficiency of which is hereby acknowledged, has bargained sold and does by these presents bargain, sell, remise, release and forever transfer and quit-claim to the said Grantee all the right, title and interest which the said Grantor has or may have in and to the following described property, including all rights of ways, alleys, waters, privileges, appurtenances or otherwise appertaining, together with all buildings, structures, fixtures, machines, equipments, facilities and other improvements, to wit:

All that tract or parcel of land situate, lying and being in Dougherty County, Georgia and being more particularly described on Exhibit "A" attached hereto and incorporated herein by this express reference thereto.

TO HAVE AND TO HOLD the said described premises unto the said Grantee, so that neither Grantor, nor any other person or persons claiming under or through Grantor, shall at any future time claim or demand any right, title or interest to aforesaid described premises or its appurtenances.

IN WITNESS WHEREOF, the Grantor has signed and sealed this deed, the day and year above written.

ALBANY DOUGHERTY PAYROLL
DEVELOPMENT AUTHORITY

BY: [Signature]
CHAIRMAN

ATTEST: [Signature]
SECRETARY

Signed, sealed and delivered
in the presence of:



PLEASE RETURN TO:

James E. Reynolds, Jr.
Perry & Watson, LLP
P. O. Box 71209
Albany, GA 31708-1209

EXHIBIT A

All that certain tract or parcel of land situate lying and being a part of Land Lot numbers 113, 114 and 115 of the First Land District of Dougherty County, Georgia, and being more particularly described as follows: Begin at the intersection of the south right-of-way (R/W) of Georgia Route 50 and S20, U.S. Route 82 (245' R/W) and the west line of Land Lot 115 and go in an easterly direction along the south R/W of said U.S. Route 82 along the arc of a curve concave northerly having an arc length of 321.96', a radius of 5899.58', a chord bearing of S 89 degrees 25' 40" E for a chord distance of 321.92'; go thence N 89 degrees 00' 32" E along the south R/W of U.S. Route 82 a distance of 1319.09'; continue thence in a northeasterly direction along the south R/W of U.S. Route 82 along the arc of a curve to the left having an arc length of 999.54', a radius of 7809.44', a chord bearing of N 85 degrees 20' 32" E for a chord distance of 998.85'; go thence N 81 degrees 40' 32" E along the south R/W of U.S. Route 82 a distance of 506.17' to the west R/W of Branch Road (80' R/W); go thence S 0 degrees 36' 58" E along the west R/W of Branch Road a distance of 350.00'; go thence N 81 degrees 40' 32" E a distance of 36.83' to the east line of Land Lot 115; go thence S 0 degrees 36' 58" E along the east line of Land Lots 115 and 114 a distance of 476.24' to the north R/W the Seaboard Coastline Railroad; go thence S 89 degrees 23' 02" W along the north line of the Seaboard Coastline Railroad a distance of 100.00'; go thence S 0 degrees 36' 58" E along the west R/W of the Seaboard Coastline Railroad (100' R/W) a distance of 3007.57' to a point on the north line of Land Lot 113; continue thence S 0 degrees 36' 58" E along the west R/W of the Seaboard Coastline Railroad a distance of 165.47'; go thence S 1 degree 13' 09" E along the west R/W of the Seaboard Coastline Railroad a distance of 61.57'; go thence in a southeasterly direction along the arc of a curve to the left having an arc length of 420.28', a radius of 1005.37', a chord bearing of S 14 degrees 23' 31" E for a chord distance of 417.22' to the east line of Land Lot 113; go thence S 0 degrees 36' 58" E along the east line of Land Lot 113 a distance of 360.65' to the north R/W of the Seaboard Coastline Railroad Mainline; go thence N 85 degrees 15' 30" W along the north R/W of the Seaboard Coastline Railroad Mainline a distance of 3193.55'; go thence N 0 degrees 21' 54" W a distance of 689.82' to the south line of Land Lot 114; go thence S 89 degrees 17' 13" W along the south line of Land Lot 114 a distance of 15.00' to the southwest corner of Land Lot 114; go thence N 0 degrees 21' 54" W along the west line of Land Lots 114 and 115 a distance of 3693.59' to the south R/W of Georgia Routes 50 and 520, U.S. Route 82 and the point of beginning. Said tract contains 324.665 acres; and

All right, title and interest of the Albany Dougherty Payroll Development Authority in and to all land subject to the following easements, rights-of-way and conveyances:

Exhibit A
-continued-

1. Easement to Georgia Power Company, dated August 5, 1969, recorded in Deed Book 409, page 540, Dougherty County Land Records.
2. Right of way deed to Seaboard Coastline Railroad Company, dated August 5, 1969, recorded in Deed Book 409, page 546, aforesaid records.
3. Gas line easement to City of Albany, dated August 5, 1969, recorded in Deed Book 410, page 212, aforesaid records.
4. Deed to Commissioners of Roads and Revenues of Dougherty County, dated March 15, 1971, recorded in Deed Book 444, page 301, aforesaid records.
6. Deed to State Highway Department of Georgia, dated March 15, 1971, recorded in Deed Book 446, page 331, aforesaid records.

Said tract being the same property conveyed by Warranty Deeds from Ann C. Thompson to Albany-Dougherty Payroll Development Authority dated September 11, 1967, of record in Deed Book 372, page 117, and First State Bank and Trust Company, Executor under Will of Ray Y. Cross, deceased, dated September 11, 1967, of record in Deed Book 372, page 119, and Winifred Chandler Harwell and Paul L. Harwell to Albany Dougherty Payroll Development Authority, dated September 11, 1967, of record in Deed Book 372, page 114, all in the Office of the Clerk of Superior Court of Dougherty County, Georgia.

FILED
94 SEP 13 AM 9:49
MARSHALL GABLE
DOUGHERTY COUNTY
CLERK OF COURT

pd
PLEASE RETURN TO
FERRY, WALTERS & LIPPITT
P.O. BOX 463, ALBANY 31703
404-432-7438 JLR

Page 1421 of 255

AMENDMENT #1 TO LEASE AGREEMENT

This Amendment #1 ("Amendment #1") is made to the LEASE AGREEMENT ("Agreement") entered into as of March 22, 1990, by and between the ALBANY DOUGHERTY PAYROLL DEVELOPMENT AUTHORITY ("Authority"), and COOPER TIRE & RUBBER COMPANY ("Company").

Whereas, the Authority has entered into a consent decree with the United States of America and Bridgestone/Firestone, Inc. ("Consent Decree") whereby the Authority is obligated to provide access to the Site and to amend the Agreement between the Authority and the Company, the parties agree as follows:

Unless otherwise defined herein, all defined terms have the same meaning as in the Agreement,

1. The Company shall not use groundwater from the Residuum, Transition Zone and Upper Ocala aquifers in such a way as to result in human ingestion or dermal contact;
2. The Company shall not install any on-site groundwater extraction well which will diminish the effectiveness of any groundwater extraction well used for purposes of CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended) response actions at the Site (Site means Project Site as that term is defined in the Agreement); and
3. (a) The Company shall notify the Authority of the design and location of any proposed well to be installed at the Site not later than ninety (90) days prior to the proposed installation. The design and location of the wells shall be subject to United States Environmental Protection Agency ("EPA") review and approval.
(b) Not less than thirty (30) days after receipt of notification from the Company of proposed well installation, the Authority shall notify EPA of the design and location of any proposed wells to be installed by the Company.
4. The well use restrictions identified in this Amendment #1 shall terminate upon notification by EPA of the Certification of Completion of the Work pursuant to Paragraph 51 of the Consent Decree.
5. In accordance with Section 9.11 of the Agreement, this Amendment #1 shall be recorded in the office of the Clerk, Superior Court, Dougherty County, Georgia, or in such other office as may be at the time provided by law as the proper place for such recordation.

1421-256

AMENDMENT #1 TO LEASE AGREEMENT
Page 2 of 4

6. All other terms and conditions of the Agreement remain unchanged and in full force and effect.

IN WITNESS WHEREOF, the Authority and the Company have caused this Amendment #1 to be executed in their respective names and their respective seals to be affixed hereto and attested by their authorized officers, all as of August 25, 1994.

ALBANY DOUGHERTY PAYROLL
DEVELOPMENT AUTHORITY

By: Sil J. Smith

Title: Chair.

(CORPORATE SEAL)

ATTEST:

By: [Signature]

As to Albany Dougherty Payroll
Development Authority, signed,
sealed and delivered this
day of August, 1994,
in the presence of:

Witness: [Signature]

Notary Public

My commission expires:

My Commission Expires March 11, 1999
(date)

(NOTARIAL)

Form 1421 Rev. 257

AMENDMENT #1 TO LEASE AGREEMENT
Page 3 of 4

(CORPORATE SEAL)

ATTEST:

By: Alan C. Kaiman

Title: Secretary

As to Cooper Tire & Rubber
Company, signed, sealed and
delivered this 25th day of
August, 1994, in the
presence of:

Susan M. DeVere
Witness

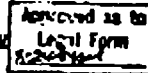
Susan E. Hamilton (nee Lee)
Notary Public

My commission expires

SUSAN E. HAMILTON
Notary Public, State of Ohio
My Commission Expires 01-16-98
(date)

(NOTARIAL SEAL)

COOPER TIRE & RUBBER COMPANY



By: J. D. [Signature]

Title: EXECUTIVE VICE PRESIDENT

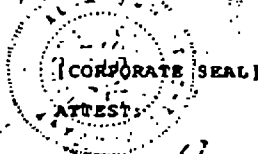
By: Julia A. [Signature]

Title: Vice President

1421 258

AMENDMENT #1 TO LEASE AGREEMENT

Page 4 of 4



By: M. C. Korman
Title: Secretary

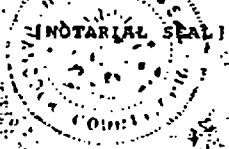
As to Alga Investments Company, signed, sealed and delivered this 14 day of August, 1994, in the presence of:

Susan M. Redbone
Witness

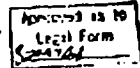
Susan E. Hamilton (not Rec)
Notary Public

My commission expires

SUSAN E. HAMILTON
Notary Public, State of Ohio
My Commission Expires 03-26-96
(date)



ALGA INVESTMENTS COMPANY



By: [Signature]
Title: President

By: [Signature]
Title: President

9-14-94
[Signature] CLERK